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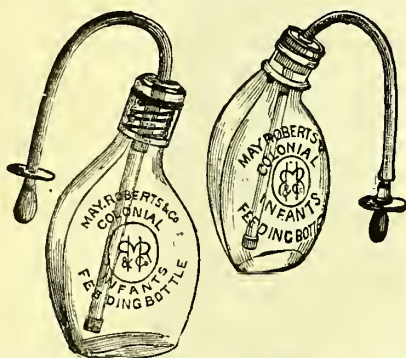
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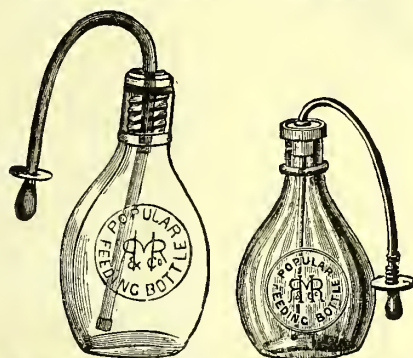
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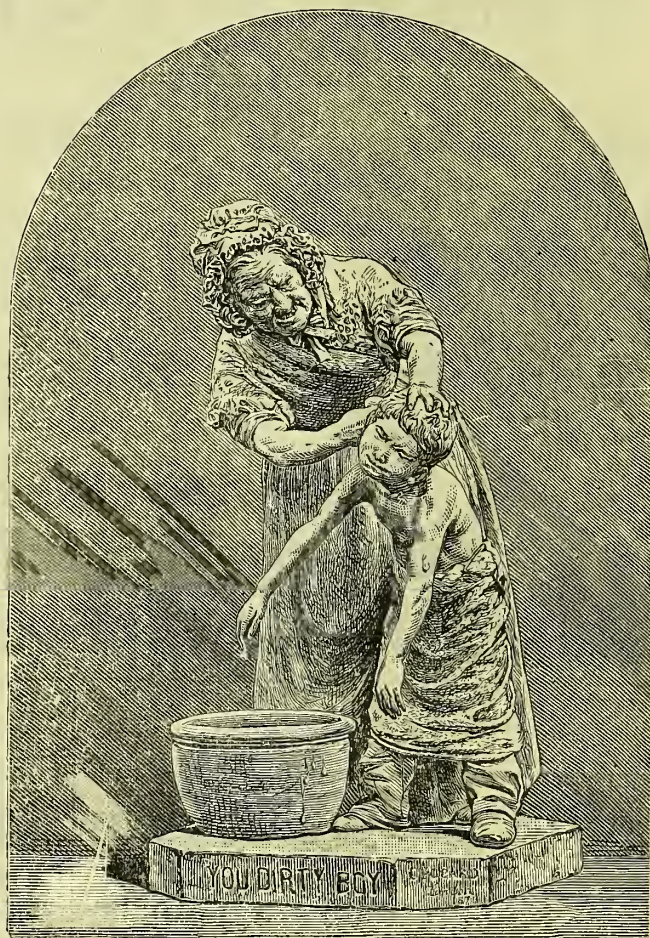
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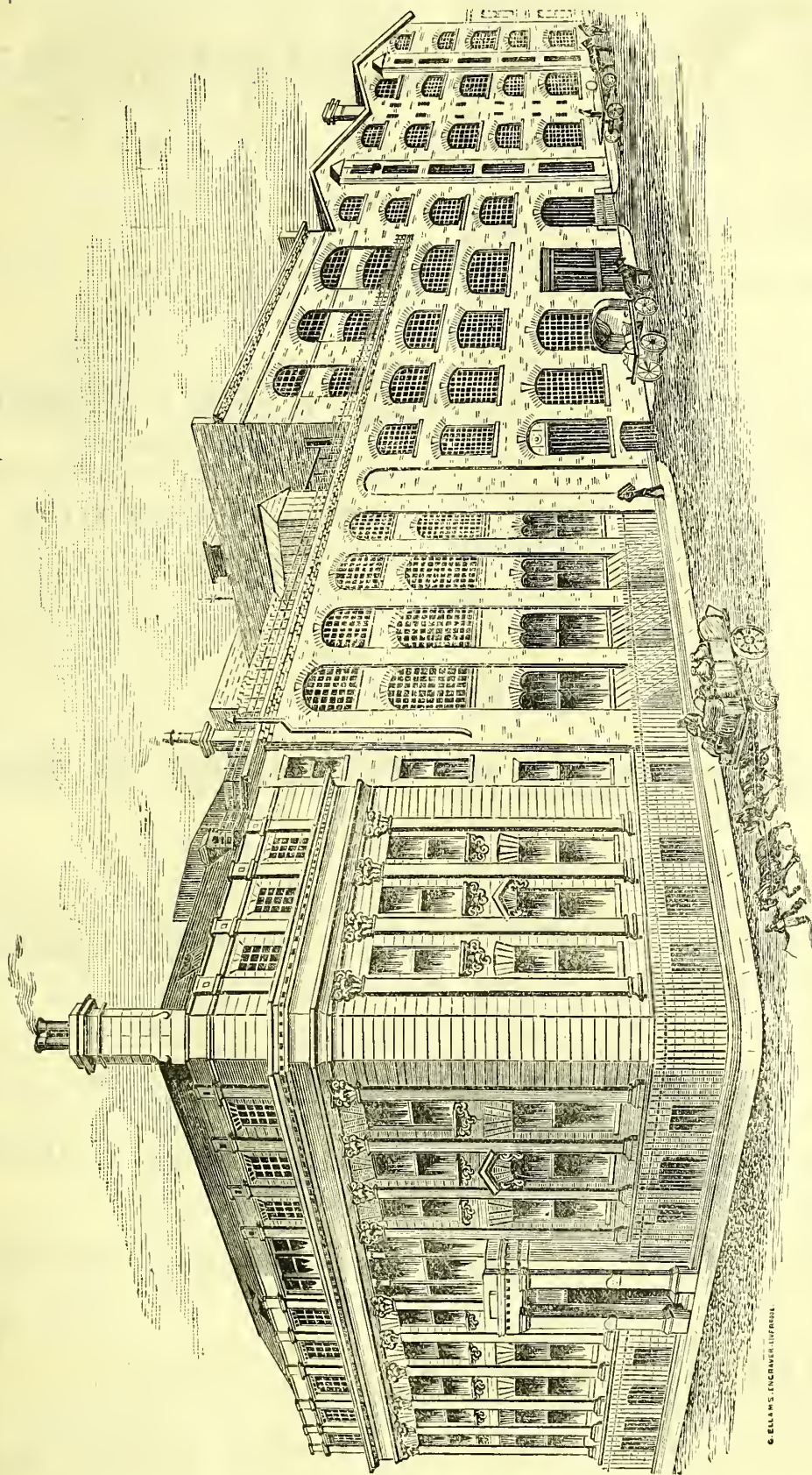
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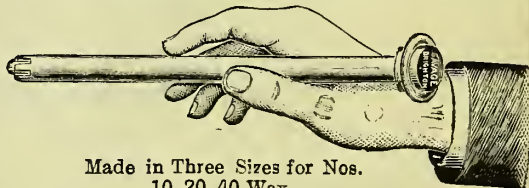
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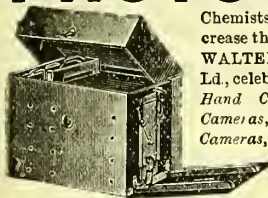


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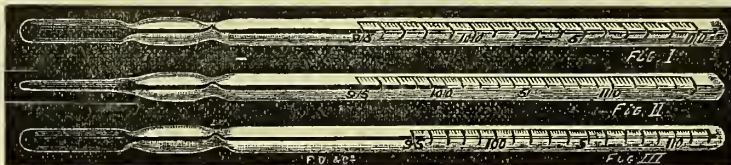
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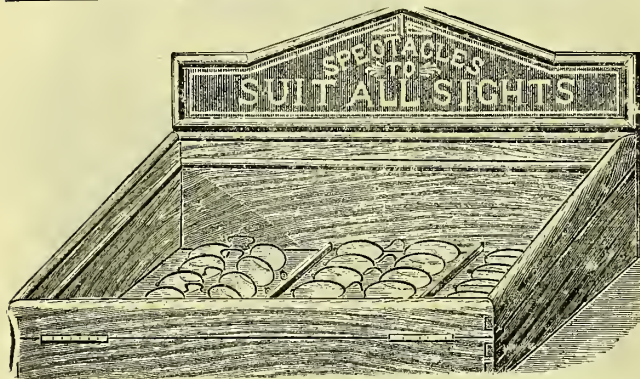
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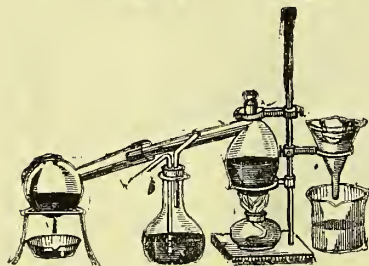
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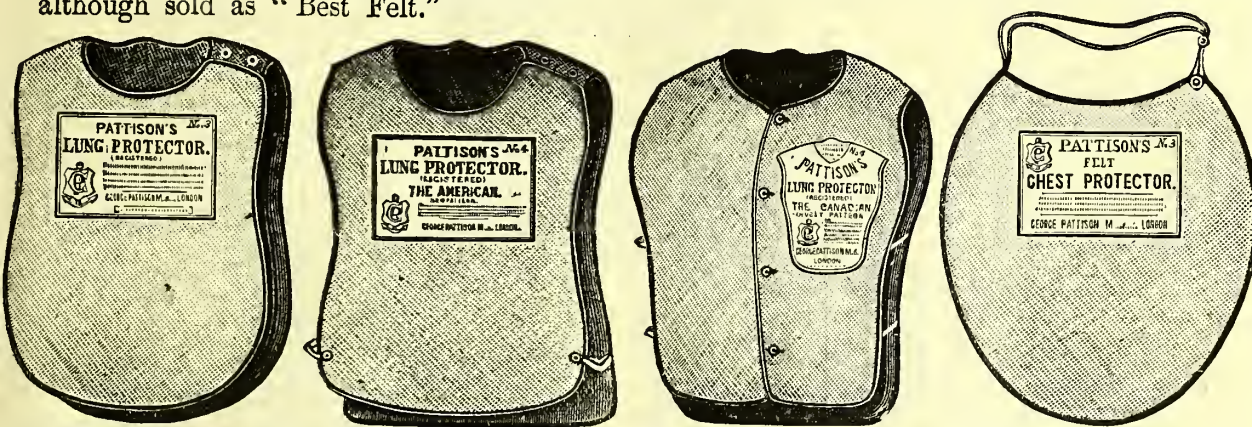
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Sixty doz. gold-labelled bottles from 6 to 60 oz.; 3-gall. pear-shaped carboys, 5s. each; 4-gall. globe ditto, 7s. each; desks, with upright glass case in front, 40s.; plate-glass toothbrush-case, bevel front, 30s., bent ditto, 30s.; mahogany dental cabinet, with 7 drawers, 28s.; several specie-jars, with royal and other arms, from 15s. each; scales, mortars, pill-machine, &c., and a lot of other fittings and utensils. Elkanah Natali, 242 Old Street (12 doors from City Road), London, E.C.

13 ft. run second-hand mahogany-fronted drawers, gold labels and glass knobs, in good condition, bargain; 9 ft. mahogany and glass-fronted counter, with drawers at back, 47. 10s.; 10 ft. 6 in. mahogany panelled-fronted ditto, with solid mahogany top, 67.; 6 ft. mahogany and plate-glass dispensing-screen, 3 doors in front, movable shelves inside, and tablet on top, "Dispensing Department"; 6 ft. flat-top plate-glass counter-case, with shelves at back, with table in centre for serving over; 7 ft. 6 in. flat plate-glass case (ebonised), with trays inside, silvered plate-glass backs, 57. 10s., bargain; upright cases for wall or counter, with movable shelves inside from 2 ft. long, 25s.; and a quantity mirrors, glass shelves, &c. &c. Note my only address, Elkanah Natali, 242 Old Street, London, E.C.

Miscellaneous.

Root-cutter (Maw's), on mahogany slab; perfect; what offers? Gowen, Fleet, Hants.

A 2-gallon copper still, pewter worm, condenser, and furnace. What offers? Palmer, Chemist, Aylesbury.

Treadle printing-press for sale; prints 600 copies an hour; price, with 5 small fonts of type, £5. O. Chard, Salisbury.

Overstocked sulphur tablets.—45 7-lb. boxes, 46s. cwt.; the lot 125s., carriage paid. Taylor, 6 Garden Street, Preston.

Will accept first reasonable offer for capital assortment spectacles and fo'ders; cost net about 57.; never shown. Williams, Modern Pharmacy, West Hampstead, N.W.

Medical student's ½ set of bones; dissection-instruments; outside lamp; warehouse crane; typograph; glass retorts, receivers, &c.; medical works. Particulars from Chemist, Forest Road, Southampton.

WANTED.

Outside lamp in good condition. Christopher-son, Swaffham.

Two swan-neck carboys, 6 or 8 gallons, cut-stoppers. Jarvis, Chemist, Parkstone.

Cura Cene 2s. 9d., Hammond's pain paint, Swift's specific. 1/23, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

Good second-hand shop-rounds and 2 carboys. (swan-neck preferred); must be cheap. F., c/o Miggesson & Co., 14 Miles Lane, Upper Thames Street, E.O.

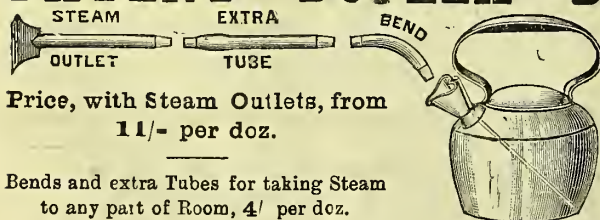
Ganot's "Natural Philosophy"; Watts' "Chemistry, Organic and Inorganic"; Wills' (Illustrated) "Materia Medica." Helsby, 208 Freeman Street, Grimshy.

6-ft. mahogany dispensing counter and screen with mirror, 9×3×3 ft. mahogany-topped counter, 12 ft. wall-fittings, 3×9 ft. wall case, 5×9 ft. ditto, counter-desk, 3 10-gall. carboys and stands, 7-ft. curved glass counter-case, ointment-jars and rounds, &c. "Ajax," Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, London, E.C.

Address Wanted.

The address of Mons. and Madame de Tuety, formerly residing at Manor Cottage, Hale, near Farnham.

PATENT "DUPLIX" BRONCHITIS KETTLE.



This is the Cheapest, Simplest, and most Perfect Kettle for Bronchitis or ordinary use ever invented. Being filled and emptied at the spout, it is impossible to boil over, and is, therefore, a perfect Tea Kettle. By simply pushing the Steam Outlet into Spout it is INSTANTLY converted into a most perfect Bronchitis Kettle; and, having no screws or lids to get out of order, it is the simplest Kettle to use ever made.

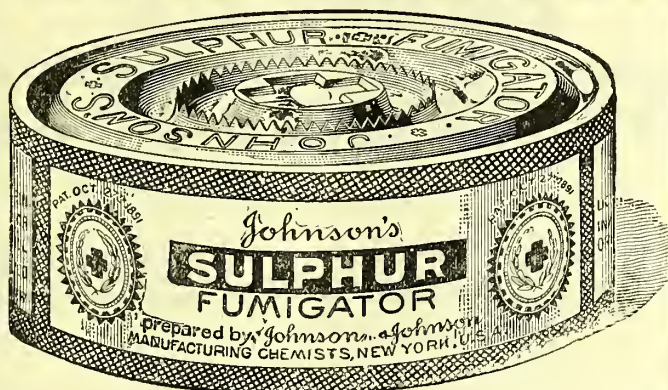
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HANBURY & CO., Tinplate Workers, 156 BRISTOL ST., BIRMINGHAM.

Or of most Chemists' Sundrymen.

Special quotations to Wholesale Buyers.

JOHNSON'S SULPHUR FUMIGATOR.



Patent No. 18,434
of 1891.

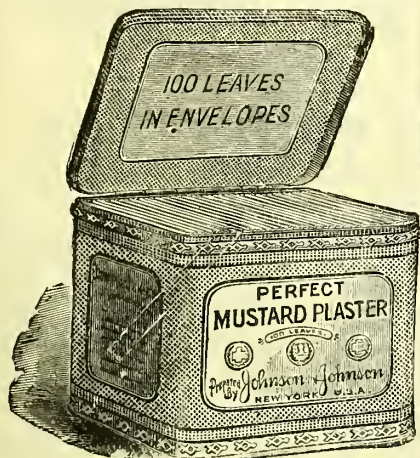
Patent No. 18,434
of 1891.

FOR FUMIGATING INFECTED ROOMS AFTER

Cholera, Diphtheria, Typhoid Fever, Smallpox, Scarlet Fever, & other Contagious Diseases.

Destroys noxious vapours from sewers, &c. By the use of these Fumigators a safe and convenient mode of burning sulphur indoors is provided. One Fumigator will burn two hours, and is sufficient for an ordinary sized room.

JOHNSON'S FUMIGATOR is put up in a specially prepared **FIREPROOF BOX**, and will not burn nor become red hot like tin or other metal packages. Packed in neat **Show Boxes** with **folding covers**. A showy **Counter Article**. Retail price, 1/.



100 leaves in tin box, price 5s.

**IF YOU TRY THEM
YOU WILL BUY THEM!**

A Test and Comparison will show that the Mustard Plasters prepared by **JOHNSON & JOHNSON** are of greater strength and generally superior to others. They do not decompose nor change with age. They are packed in very handsome containers, in packages to retail at from 1d. to 1/6 each.

THEY ARE THE MOST PROFITABLE

To all concerned in Mustard Plasters because they are the best made.

TRADE PRICE LIST OF JOHNSON & JOHNSON'S IMPROVED MUSTARD PLASTERS

	On Paper	On Cloth	Retail price
3 leaves in round tin box, per dozen	2/9	3/-	/6 each
6 " " " " " "	5/-	5/6	1/-
10 " flat " " " "	7/-	8/6	1/6
100 " one in envelope, in tin box, per box	5/-	6/-	1½ "
Yard rolls, 6 in. wide, per dozen	7/-	8/6	1/6
Half-yard roll's, 6 in. wide, per dozen	5/6	£1	1/- "

Sample Mustard Leaf mailed to any chemist address, without charge, on application: or on receipt of 8d. in stamps, 1 box 10 leaves paper (see cut), and 1 box 3 leaves cloth, retail for 2/.



10 leaves in flat tin box, at 7/- per dozen boxes.

In ordering from the Wholesale Trade specify **JOHNSON & JOHNSON.**

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SECOND SEASON.

SOLPORT'S
"FURFELT"



CHEST PROTECTORS.

Made from the Softest Natural Undyed Lamb's Wool incorporated with the Fur of the Grey Coney, and adjudged by the Trade and its press to be

"AN IDEAL CHEST PROTECTOR."

PRICES:—

	No. 0	1	2	3	4	5	6
Single ...	5/6	6/6	9/-	12/-	15/6	20/-	25/- per doz.
Double ...	12/-	15/-	20/-	25/6	34/-	42/6	52/- "
Vest Shape...	16/6	22/6	30/-	37/6	46/6	58/6	70/- "



SOLPORT BROS.

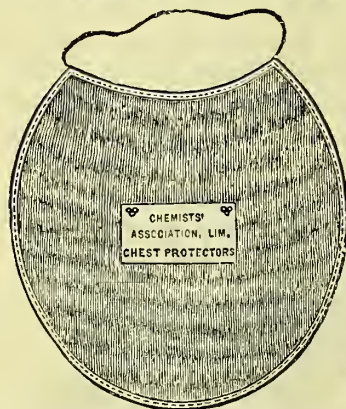
66 Shaftesbury St., New North Road,

LONDON, N.



AND OF ALL WHOLESALE HOUSES.

CHEST PROTECTORS & RESPIRATORS.



CHEST PROTECTORS.

	No. 0	1	2	3	4	5	6
FELT (Scarlet) Single ..	5/-	6/3	7/4	9/-	11/3	1/-	21/- doz.
Double ..	11/6	14/-	18/-	22/-	26/6	35/-	44/- "
"The Eclipse" (Vest Shape) }	17/6	23/6	31/6	39/-	48/-	56/-	"

NATURAL WOOL—

	No. 0	1	2	3	4	5	6
Single ..	5/6	6/9	8/6	10/-	12/6	16/3	22/-
Double ..	12/6	15/6	20/-	24/-	28/-	38/6	48/6
"The Eclipse" (Vest Shape) }	19/3	26/-	34/6	43/-	53/-	62/-	"

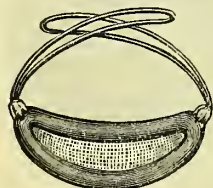
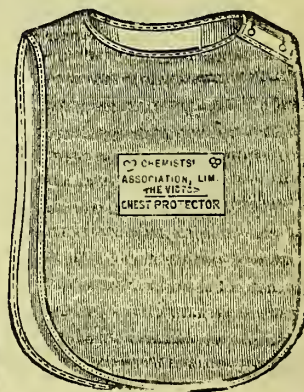
CHAMOIS & FLANNEL—

	No. 0	1	2	3	4	5	6
Single ..	5/3	6/2	11/-	12/10	15/3	17/-	"
Double ..	19/-	23/9	29/6	36/-	46/-	"	"
"The Eclipse" (Vest Shape) }	25/-	35/-	47/-	53/-	72/-	84/-	"

SAMPLES ON APPLICATION.

Subject to Special Discounts as under:—

X	5 per cent. on orders of less than £5 worth.	X
10	" " " £10 worth and upwards.	
15	" " " £25 " " "	
20	" " " £50 " " "	



RESPIRATORS (Non-corrodible Metallic).

LADIES' OR GENTLEMEN'S (as Illustration)

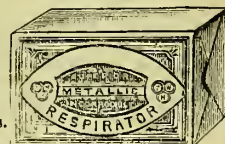
No.	1	2	3	4	5	6	7	8	9
Per doz.	7/6	11/3	13/3	19/-	22/-	28/-	42/-	47/-	53/-

All other kinds kept in Stock.

N.B.—A Mahogany Glass Show Case presented with first orders of not less than £2 assorted.

Subject to Discounts as under:—

5 per cent. for orders of less than £2 worth.	12½ per cent. for orders of £10 worth & upwards.
10 " " " £5 worth & upwards.	15 " " " £25 " " "
15 " " " £10 worth & upwards.	20 " " " £50 " " "



THE CHEMISTS' ASSOCIATION, LIMITED,

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"BEATROP LONDON."

CURTAIN ROAD, LONDON.

Telephone No.
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Agents for New South Wales, Queensland, and New Zealand.

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AND APPLIANCES
BRATBY & HINCHLIFFE LTD

ANCOATS & 146 MINORIES
MANCHESTER & LONDON

81 ROBERTSON STREET, GLASGOW.

PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

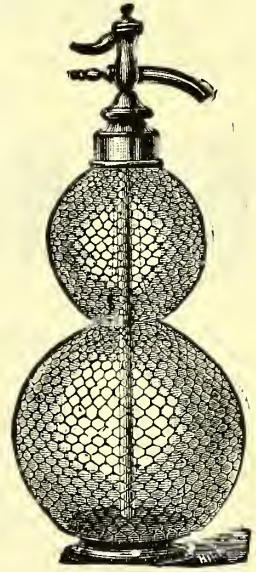
SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.

Including two funnels and stopper for charging.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.

MESSRS. NOYES BROS., 43 Queen Street, Melbourne, Victoria,
Agents for Victoria, South and West Australia, and Tasmania.



CO AERATED WATER MANUFACTURERS

HAY'S

SOLUBLE ESSENCES

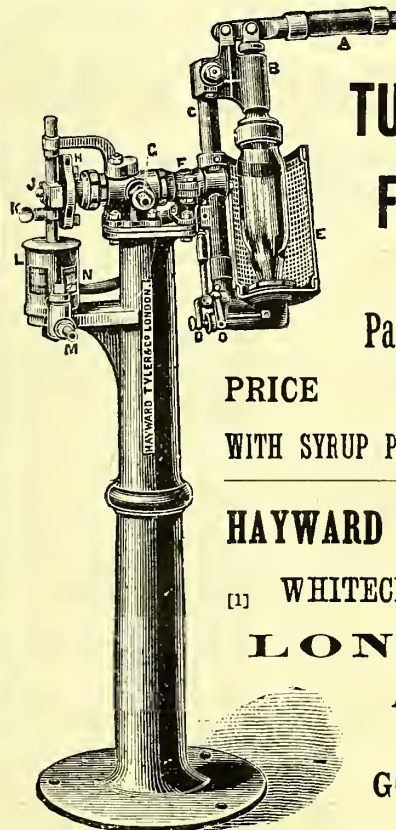
ARE GUARANTEED TO BE THE FINEST IN THE MARKET

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W. HAY, MANUFACTURING CHEMIST

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IN ORDERING SPECIFY HAY'S MANUFACTURE



IMPROVED TURNOVER FILLERS

FOR

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PRICE ... £7 1s.

WITH SYRUP PUMP £9 9s.

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GOLD

MEDALS.

ORANGE WINE,

PREPARED FROM FINE SEVILLE ORANGES,

Suitable for Manufacture of

ORANGE QUININE WINE.

WRITE FOR SAMPLES AND QUOTATIONS.

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REFINERY—CURTAIN ROAD, LONDON. AND LEITH, N.B.

ESTABLISHED NEARLY FIFTY YEARS.

PRIZE MEDALS AWARDED AT ALL THE EXHIBITIONS.

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LATEST
NEW PATENT SELTZOGENE

PATENT No. 18,305.

For the immediate Preparation of Seltzer Water, Eau de Vichy,
Soda Water, Sparkling Lemonade, Aerated Waters, &c.



Finding so many complaints through the screws of Seltzogenes getting worn, and Customers not screwing taps on tight enough, E. G. & Co. have patented the above improvement in their Seltzogenes, which differs materially from the numerous kinds that have from time to time been introduced, there being no screwing required, thus the machines cannot easily get out of order.

In place of Screw on Tap, there is a Clip, which is easily fastened to the Seltzogene, any Child being able to Screw the little Key at Top, and making perfectly Air-tight the Apparatus.

WEAR AND WORKING GUARANTEED.
NO MORE SCREWING REQUIRED. TAP
CANNOT GET CORRODED.

CONTRACTORS TO HER MAJESTY'S GOVERNMENT.

SOLE ADDRESS—
139 & 141 Farringdon Rd,
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Seltzogenes and Gazogenes Repaired.

BY SPECIAL
H.R.H. THE DUKE OF
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APPOINTMENT TO
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BOURNE WATERS.
THE PUREST IN ENGLAND.

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,
MANUFACTURERS OF
SODA, POTASH, LITHIA, AND SELTZER WATERS
LEMONADE, AND AROMATIC GINGER AT
4-dozen and 6-dozen Cases Carriage Paid.
Special attention is invited to our manufacture of
LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—
the recognised Specific for Gout.

THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in
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Prices and Pamphlet on application. Agents appointed.
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SACCHARUM LACTIS
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Highly recommended by authorities. The
only make of perfect purity in all respects.

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The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, OCT. 8, 1892.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

PLEASE NOTE.

ADVERTISEMENTS for this Supplement must be received at the Office, 42 Cannon Street, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue.

Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications endorsed "Supplement," to The PUBLISHER of "THE CHEMIST AND DRUGGIST."

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1.—LONDON (South).—Thickly-populated locality; held by vendor many years; returns, at present, about £12 per week; well-fitted shop and good stock; offer wanted.

2.—LONDON, N.W.—Good-class Light Retail and Dispensing; returns last year £710; profits above the average; well-fitted shop and good stock; large house, on lease; about £550 required.

3.—LONDON.—Thickly-populated locality; good ready-money Retail and Dispensing Business; returns £1,100 yearly, with good profits; shop well-fitted and good stock; valuation; terms can be arranged; worth attention.

4.—KENT.—Good business town; old-established Family Business; returns about £1,130 last year, with about £450 net profit yearly; well-fitted shop and good stock; about £950 required.

5.—HOME COUNTY.—Dispensing and Retail Business; well situated; returns £600 yearly, all good business; well-fitted shop and good working stock; comfortable 9-roomed house, held on lease, very moderate rental; garden and conservatory; about £500 required.

6.—KENT.—Business established many years; held by vendor 8 years; returns about £800 yearly; well fitted shop, attractive in appearance, and very good, well-selected stock; comfortable house; rent moderate; valuation and small premium only required.

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9.—MIDLAND TOWN.—Retail and Dispensing Business; situate in good hunting district; returns £800 yearly, with good profits; comfortable and well-fitted shop and good stock; about £800 required; good garden attached.

10.—HOME COUNTY.—Small Retail Business, situate in a very good-class locality; returns about £275; very profitable; good opening for an energetic man; good house, shop, and garden; about £200 required.

11.—KENT.—Old-established Business, situate in main street of a favourite health-resort; returns £450; good Proprietary included; large well-fitted shop and good stock; about £400 required.

12.—FASHIONABLE TOWN (West).—Dispensing and Retail Business; returns at the rate of £600 yearly; handsome double-fronted corner shop, well stocked; good-sized house on long lease; price £535.

13.—MIDLANDS.—Retail and Dispensing Business; very good profitable concern; returns £700 yearly; with good proprietaries attached; good house with private entrance; price about £480.

14.—EASTERN COUNTIES.—Vendor's health obliges him to relinquish; present returns about £450, but can be doubled by anyone equal to work; large shop; good fittings; well stocked; post office attached; large house; price £400; worth attention.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

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Reference to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

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VALUATIONS and TRANSFERS conducted in any part of the United Kingdom. Over 20 years' practical experience.

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- 3.—**BERKSHIRE.**—Good market town; Retail and Dispensing Business; returns £1,200; same hands many years, retiring; large house and good garden; shop very heavily stocked; price £1,000.
- 4.—**YORKSHIRE.**—Inland health-resort; Retail and Dispensing Business; returns £1,000; net profit £300; 7,000 prescriptions yearly; low rent; excellent position; price £800; illness cause of sale.
- 5.—**LINCOLNSHIRE.**—Good market town; Retail, Dispensing and Prescribing Business; returns £1,100; good house; capital position in main street; price for good will £50, and valuation.
- 6.—**DERBY.**—Branch Retail and Prescribing Business; returns £500, principal would greatly increase; rent £30; good house; price £300; shop is well fitted and stocked.
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Having a large number of Businesses on our Register it is impossible to advertise all. Purchasers may obtain information regarding others, either by personal application or by letter, stating requirements.

Messrs. Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

DEATH VACANCY.—A good-class Country Business to be sold at valuation, about £75; double-fronted shop, well fitted; immediate possession. Apply to E. M. Harrison, Swan Hotel, Biggleswade, Beds.

SURREY.—Old established Retail and Prescribing Business; also Branch; both quite unopposed; Post-office clears rent; price £800; no agents. "Chemist," c/o Mr. Barnard, Foxberry Road, Brockley, S.E.

A SMALL genuine Chemist's Business for sale, a bargain; must be sold through illness; suitable for an energetic Chemist capable of Prescribing; good 10-roomed house; low rent. Apply, S. L., 9 Queen's Terrace, Exeter.

A BARGAIN; for immediate disposal, a Business in S.W. district for £100 or offers; satisfactory reasons for disposal; thorough investigation courted. 126/13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

62

Messrs. CROCKER & CO.

Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.,

Have at the present time a large number of inquiries for good-class Country Businesses, and they invite communications from intending vendors. NO CHARGE IS MADE UNLESS A SALE IS EFFECTED.

WILTSHIRE.—An old-established good class Retail, Dispensing and Agricultural trade; returns £950; price £750, or valuation of stock and fixtures; fine large house and good garden.

ISLE OF MAN.—Good-class Retail and Dispensing trade; returns £500; price £400; rent £36; handsome pharmacy, and good house.

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LONDON, W.—Family and Dispensing trade; returns £1,075; price £1,000; an exceptionally good investment, and worth attention.

NO CHARGE TO PURCHASERS.

VALUATIONS A SPECIALITY TERM ON APPLICATION.

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A N old-established Chemist and Druggist Business, situated in one of the largest towns in North Wales; satisfactory reasons given for selling. For further particulars apply to T. C. Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool.

I MEDIATE disposal, through death, an old Dispensing and Mixed Retail Business in Nottingham, carried on by late owner for over half a century; price £400; part can remain; full particulars. Address, "Exor.," 18 Melbourne Street, Nottingham.

O LD-ESTABLISHED Business, East-end of London, populous neighbourhood, to be sold at once on account of death; low rent; business rather neglected of late; good opening for energetic man. Apply to M. Buchner, Chemist, 149 Houndsditch, E.C.

I N one of the leading towns in the West of England.—A first-class Light Retail, Prescribing Business, with Wines and Spirits; returns have averaged £1,900 for last 3 years; handsomely fitted; good stock; large house; valuation only. Address, N. M., 62 Crescent Road, Reading.

C OUNTRY Chemist's Prescribing and General Retail, with Gilbey Agency and P.O., with several good proprietary articles; full prices; no opposition for miles; established many years; good opening for Dentistry. C. Edwards, Post Office, Harnseahead, Stoke-on-Trent.

A GOOD Retail, Prescribing, and Agricultural Business; market town in Lincolnshire, all newly fitted; well stocked; satisfactory reasons for disposal; next door to Post-office, opposite Corn Exchange. Particulars of A. C. Farmer, Chemist, Spilsby. A week's trial allowed to a genuine purchaser.

E. STOW MORRIS. 117 Hesse Road, Hull, wishes to dispose of his Light Retail, Dispensing, and Prescribing Business, at once, having bought larger concern; fitted with mabogany and well stocked; good house; returns £6 weekly; price £150 to immediate purchaser; part could remain on easy terms.

C HEMIST.—Old-established Business; commanding corner shop, well fitted and stocked; good proprietaries which have ready sale; price, valuation of stock and fixtures; proprietor taken larger business in the country. Address, "Chemist," c/o Mr. Welch, 41 Lower Addiscombe Road, Croydon.

H OME County, 25 miles from London; a very profitable Light Retail and Dispensing Business, with fair amount of Prescribing; returns are £750, showing an increase for some years past; rising town, growing fast; price £550. Further particulars on application, "Dextrine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

H OME County.—Unopposed good class Country Retail and Dispensing Business within easy distance of London; returns £750; price £555; nicely-fitted pharmacy with first-rate house and garden; low rent on long lease. Satisfactory reasons for selling upon application to "Mallow," c/o Meggeon & Co., 14 Miles Lane, E.C.

L OONDON, West; Marketing thoroughfare; old-established Retail and Prescribing Business; returns £400 under the management of a Junior; plenty of scope for increase; handsomely-fitted shop and nice house; price £300, to include valuable lease. Apply "West End," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

M IDLANDS.—Large market town; good Business, at present as Branch; capital position for young Chemist; large populous district, without opposition; well-fitted corner shop; ill-health cause of sale; scope for large Family, Prescribing, and Cattle-medicine trade; cash price £320. Apply, M. Daniel, Albert Street, Derby.

A GOOD-CLASS Dispensing and Retail Business in large country village in North Midlands, unopposed; returning £550; good agency and appointment attached; introduction given; good house, garden, stable, &c.; rent £25; rates nominal; price £375. "Trifolium," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL—Continued.

THE Business of a leading Wholesale Druggists' Sundriesman and Surgical, &c., Maker for Sale; ill-health only reason; price, including stock, about £7,000; principals only. Leggatt, Rubinstein & Co., Solicitors, 5 Raymond Buildings, Gray's Inn, London, W.C.

MESSRS. ANDROS & CO., Chemists' Transfer Agents, 62 Ship Street, Brighton, have for disposal a Retail and Prescribing Business in Yorkshire: double-fronted corner shop, plate-glass windows; returns nearly £1,700; rent £65 on lease; large house; established over 50 years; price £800. For full particulars apply as above.

BRANCH for disposal; suit single man not afraid of work; in the immediate neighbourhood there are 8,000 population and no other chemist; manufacturing and working-class trade; one hour from London; little over valuation taken; 8-roomed house; rent £32. Address, "Dentist," 184 Dalston Lane, London.

DERBYSHIRE.—An exceptionally good opportunity offers of securing a good-class Light Retail and Dispensing Business; owner leaving the retail; returns £750, with a net profit of £300; low rent, good house, corner position; price £520, for which full value is offered. "Zinc," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MIXED Drug and Tobacco Business for sale, in large town, Midland Counties; splendid opening for qualified man able to prescribe; several good proprietaries and large saleable stock; satisfactory reasons for leaving; returns over £600 without patents; rent £20, clear; price £300; agents need not apply. Address, "Cortex," Providence House, Blaenauvau.

GENUINE Retail Drug Business for sale; established 20 years ago by present proprietor, who is retiring from retail; long lease, as lock-up shop, or with house; 10 minutes from London Bridge, Surrey side; thickly populated; very brisk ready-money drug trade, with two or three good proprietary lines. Address, "Practical Chemist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£200 Cash, remainder by easy instalments; a genuine Retail and Prescribing business; old-established, in leading thoroughfare of densely-populated neighbourhood, North London; handsomely-fitted shop; convenient house, long lease, private entrance and good garden; returns about £400, capable of great increase; good opening for Dentistry. Apply, 87/96, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

THOMAS TOMLINSON & SON, Chemists' Valuers, 9 New Cannon Street, Manchester, have Businesses for Disposal in Rochdale, about £500; Rochdale, about £800; Sheffield, about £450; Sheffield, about £170; Penrith, about £1,000; Southport, about £280; Oldham, about £350; Oldham, about £600; Bolton, about £350; Nottingham, about £400; Farsley, about £250; Osweston Ferry, about £220; Bradford, about £650; Ripon, about £650; Warrington, about £250; Liverpool, about £200; Liverpool Broadgreen, about £200; Bradford, Manchester, about £110, and several others.

EXCHANGE or Sell.—Bristol.—Genuine Dispensing, Prescribing, and Light Retail, taking 13/ 10s. weekly, capable of great increase; no cutting or opposition; very profitable Prescribing; good sale for own Proprietaries and Horse and Cattle Medicines; handsomely-fitted, well-stocked, double-fronted shop; main thoroughfare; would suit either qualified or unqualified man; splendid 10-roomed house (which could be let off if desired) and premises; rent £40; owner reluctantly selling owing to failing health, as Bristol does not suit him; price £400; no agents; would make grand Drug Stores; every investigation solicited. N.B.—Or vendor would exchange business for larger one in London, and pay difference in cash. Address, "Chemist," 135 Lawrence Hill, Bristol.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CHEMIST'S Shop to let in northern suburb of London; over 7 years in same line; rent only £30, and fixtures will be sold for £30. Apply to "Hydro," c/o Tidman & Son, Bushell Street, London, E.

SURGERY (open 10 years), through death, to be Let or Sold; would suit a Surgeon or Chemist; rent £35; fixtures £40; or house, fixtures, and stock to a quick purchaser, £400. "Owner," 23 Queen's Road, Brighton.

SHOP, suitable for a Chemist, in the centre of a good town within 50 miles of London, with a prospect of doing a good business, there being only two Chemists in the town of a population of nearly 5,000, and a populous surrounding district. Apply, 173/6, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO be Let or Sold, the Springfield Chemical-works, situated 10 minutes' walk from Church Railway Station; suitable for the manufacture of extract of indigo, paste blue for paper manufacturers, &c., and with a large square piece of vacant land suitable for extension. To view or to treat apply Mr. William Sidebottom, Catlow Hall Street, Oswaldtwistle.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A SMALL concern; thickly-populated neighbourhood in or near London. 178/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a genuine Retail and Dispensing Business, within 100 miles of London; must bear strictest investigation; price within £500. Apply, in first instance, to M. H. A., c/o Messrs. Wright, Layman & Umney, Southwark, London.

A MEDICAL man of considerable experience is anxious to hear of a desirable opening for practice, and will pay good premium for the information. Address, in confidence, 175/29, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, to purchase at once, a good-class Retail, Dispensing, and Prescribing Business, either in London or suburbs; good market town not objected to; price must not exceed £1,200. Address full particulars to "Chemicus," 10 Lorne Villas, Preston, Sussex.

WANTED, at once, a good-class Retail, Dispensing, and Prescribing Business; returns £600 to £800; country preferred, and if unopposed not objected to; one capable of increase preferred; can pay cash. J. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

WANTED, a genuine Dispensing and Prescribing Business; returns £400 to £500; terms, half cash and half as arranged, or Manager-ship or as Working Partner with view to purchase; Midlands or within 50 miles of London preferred. Full particulars, in confidence, to W. J., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a Partnership, where £250 would be well invested; London preferred; qualified, and of great and varied experience. Address, 178/30, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ADVERTISER, holding Minor qualification, with extensive wholesale and retail experience, desires Partnership in a good Dispensing Business; must bear strict investigation; capital at command. Address, "Chemicus," 50 Portland Road, Stoke, Devonport.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO be Sold, the Fittings, with Bottles and Jars, complete (stock if required), of a small Chemist's Business, within 12 miles of Liverpool; valuation only required. Address, "Chemist," John Thompson (Limited), 58 Banover Street, Liverpool.

TO Chemists and Druggists.—For sale, 4 elegant Dispensing Screens; 20 Nests of Druggists' Drawers with glass labels, crystal knobs; splendid Wall Case in Mahogany; 4 magnificent Druggists' Bent Counter Show Cases; Window Enclosures; a number of Carboys; only suitable for a first-class shop; to be sacrificed; also the entire Fittings of a first-class Chemist's Shop to be sold in one lot. Edwards & Fothergill, Old Haymarket, Liverpool.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, to Apprentice, a well-educated youth, aged 18, for 3 years to a good-class Dispensing and Retail Chemist. Replies to state premium, &c., c/o H. S. C., 12 Elvet Bridge, Durham.

APPRENTICE.—Wanted, a gentlemanly well-educated youth, in a good-class Country business, about one hour from Town; good home; time for recreation and study; moderate premium; references to former pupils; 2 apprentices kept. Address, "Chemist," 44 Tattington Park, Holloway, London, N.

A CHEMIST in a good country town in the West of England has a vacancy for a well-educated youth as Apprentice; outdoors, but meals in the house; must have passed Preliminary exam.; not above 16; every opportunity for thoroughly learning the business; moderate premium. "Chemicus," Messrs. Thos. Durant & Son, King Square, Bristol.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

QUALIFIED Assistant for Dispensing-counter. Apply, stating age, salary required, &c., to Judd & Co., Leamington.

PUPIL wanted by Dental Surgeon in good-class practice; resident or non-resident. L. D. S., 65 Cowbridge Road, Cardiff.

WANTED, in a good Country business, an Improver; indoors. Full particulars to Hobson Key, Chemist, Monmouth.

TROTMAN & CO., 16 Cambridge Street, Hyde Park Square, W., require an Assistant about 22; must have had London experience.

WANTED, a good Assistant for the Counter; liberal terms to a suitable man; indoors; 4 assistants kept. Shirliff & Co., 66 Goldhawk Road, W.

WANTED, Dispenser or Bookkeeper with some knowledge of Dispensing, for a firm of Surgeons; married man preferred. "Surgeon," c/o Bradley & Bliss, Reading.

QUALIFIED Assistant; indoors; under 30; good references. Apply, with full particulars as to salary, when disengaged, &c., to Bunker, 135 Great Dover Street, S.E.

IMPROVER or Junior, accustomed to a good-class business. Apply, with full particulars, stating salary (indoors), to D. Harries, Dispensing Chemist, 108 Queen Street, Cardiff.

PARIS.—Wanted, an experienced Assistant, aged about 23; one who speaks French preferred. Apply to Swann, Pharmacien de l'Premiere Classe, 12 Rue Castiglione, Paris.

ACTIVE Junior; 1 only kept; indoors; for Light Retail, Dispensing, and Photographic trade. State age, height, salary, and references, and enclose photo, to Memorial Pharmacy, Hastings.

IMMEDIATELY, a qualified Assistant (indoors) to manage Retail Branch and occasionally assist in main establishment. Apply, with full particulars, to T. R. Prime, 21 Westow Hill, Upper Norwood.

WANTED, Junior or Improver, accustomed to a good-class Retail and Dispensing business. Apply, with full particulars, to F. O. Kelly, 4 Ferme Park Road, opposite Stroud Green Railway Station.

A QUALIFIED Assistant, capable of managing a good-class Drug and Grocery business; a knowledge of Welsh necessary. Apply, with full particulars of experience, &c., to E. Lloyd, Chemist, Colwyn Bay.

IMMEDIATE.—An Assistant required for Dispensing and Book-keeping for a firm of Surgeons; indoors; one seeking a permanency preferred. Apply, between 12 and 1, 86 High Street, Whitechapel, E.

IMMEDIATELY, smart Junior; take charge occasionally; outdoors; pushing man; good commission and salary; personal application preferred. "Manager," 11 Hartfield Road, Wimbledon, S.W.

JUNIOR, about 21, for a good-class Retail and Dispensing business. State age, height, salary required (outdoors), and give particulars of experience, enclosing photo, to Headland & Co., 59 North Street, Brighton.

WANTED, immediately, a Junior for a Mixed Country business; also Manager for a Country Branch, registered, with a knowledge of Dentistry preferred. Address, "Nemo," c/o Messrs. Woolley & Co., Manchester.

WANTED at once, a competent Assistant, aged about 23 years, for a month or so. Apply, stating terms and reference, to A. Jarvis, Chemist, Parkstone, Dorset (if not replied to in 3 days may be regarded as declined).

WANTED, Assistant; qualified preferable; good references; state age, height, salary required; for medium-class Dispensing and Prescribing business. 176/16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, 2nd inst., a good Junior Assistant, not under 20 years; indoors; light trade; time for study. Apply, stating previous experience, references, salary required, enclosing c.v., to W. Jacobs, Medical Hall, Guildford, Surrey.

JUNIOR; end of October; in country; sound moral character indispensable; good Dispenser and Counterman. Address, with age, height, experience, and salary, 17/34, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER for Branch, in suburbs, wanted early; Minor qualification; single and under 30; good wages to a suitable man. Apply to W. E. Callam, 193 Borough High Street.

WANTED, immediately, a Junior Invoice Clerk for the Wholesale Drug Trade; only one acquainted with the work need apply. Apply, personally, between the hours 11 and 1, at Messrs. Gale & Company, 15 Bouvier Street, Fleet Street, E.C.

WANTED, qualified Assistant, about 26, married, to manage a good-class Branch business in Margate, for permanency. Particulars of previous engagements and salary required (with apartments), to J. Hewlett 26 Ethelbert Road, Margate.

SOUTH COAST.—Wanted, a qualified Assistant for the Dispensing Counter in a high-class Cash business; outdoors; about 22 years. Apply, with full particulars as to salary, &c., B. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, an Assistant (indoors), about 21 years of age, accustomed to a good-class Country business; hours light; no Sunday duty. State full particulars as to age, height, experience, and salary required, to H. Althorp, Chemist, Peterborough.

ASSISTANT (qualified), for about 3 months from October 24; hours from 8 to 7, excepting Saturdays; close at 4 o'clock on Fridays, and no Sunday duty. Apply, giving age and full particulars, with references, to C. Wakeham, Chemist, Helston.

TRAVELLER wanted for Sundries, Midland and Southern counties; must be young and energetic; one with connection preferred. Apply by letter, stating age, salary required, and experience, to B., c/o "Housekeeper," 82 Bishopsgate Street, E.C.

REQUIRED, at once, a competent, qualified Junior, about 22 years of age; must be of good address and appearance, and accustomed to brisk business. Apply, with full particulars and photo, or call personally, W. V. Wright, Broadway, Hammersmith.

ASSISTANT; smart, businesslike man; must be well up in Dispensing; one just completed his full term of apprenticeship treated with; liberal terms and comfortable berth; enclose carte (to be returned). Address, L. W., 22 Craven Terrace, Lancaster Gate, W.

LABORATORY Assistant.—Advertiser would be glad to hear from a thoroughly good man, young and unmarried, who would be willing to go abroad to take charge of the Laboratory of a firm of Colonial Druggists. Apply, N., c/o Warner Bros., 131 Finsbury Pavement, E.C.

ASSISTANT Forewoman wanted; knowledge of drugs necessary; must be sufficiently experienced to take entire charge of a department. Apply by letter, stating age, salary, and experience, to A., c/o Crossley, Moir & Co., Advertising Agents, 57A Coleman Street, E.C.

QUALIFIED Manager wanted for business in a working-class neighbourhood, to reside on premises; married; salary 21s. per week and commission; one used to Store trade preferred. Apply, with usual particulars, to "Radix," c/o Goodall, Backhouse & Co., Leeds.

WANTED, at once, a qualified Assistant; salary £50 (indoors). Also an energetic, experienced Assistant, aged from 21 to 24; salary £35 to £40 (indoors); one evening a week out, and every other Sunday. Apply, with full particulars, to Bararo, 309 Hackney Road, N.E.

JUNIOR.—Wanted, on or before October 31, steady, trustworthy, and obliging Assistant; must be a pushing man, accustomed to Agricultural trade and able to Extract Teeth preferred. State age, height, and salary required (indoors); Wesleyan family; comfortable home. Lockwood, Otley, Yorks.

QUALIFIED Assistant; unmarried; outdoors; thoroughly well up in big-class Dispensing; for superior cash business in Bournemouth district; hours moderate. Apply, stating salary required, when at liberty, age, height, references, &c., and enclose photo (to be returned), Southern Drug Co., Ltd., Southampton.

MANAGING Assistant required for good class pushing Cash trade; trustworthy and competent; outdoors, and no Sunday duty; liberal terms and permanency for suitable man. State salary required, particulars of last two appointments, and all customary information, Timothy White, Chemist, Portsmouth.

WANTED at once, an energetic and steady Assistant, for a Mixed Wholesale and Retail business; one who has been accustomed to Country Wholesale preferred. State salary required (indoors) and references to W. Murry, Ilkeston, near Nottingham. Qualification not essential.

J. E. PHILLIPS, Pharmacist, Baling, W., requires, immediately, a qualified outdoor Assistant; a neat and accurate Dispenser, accustomed to a good-class trade. Apply personally, or if by letter enclose carte, and state age, height, experience, salary required, and reference.

WAREHOUSEMAN and Storekeeper in Chemical Manufactory, to despatch and receive goods, to take entire charge of warehouse and stock. Apply, by letter, stating salary and full particulars as to experience, to "Scales," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, at once, a Junior Assistant, unqualified, for a Prescribing, Dispensing, and General Retail business; outdoors; knowledge of Photography desirable; Churchman, abstainer preferred. State age, experience and salary required, references, to H. Cumber, jun., 4 Fountain Street, Gt. Ormsby, Orkney Islands.

AN exceptional opportunity of securing a permanent comfortable home with a small salary, is offered to a steady, reliable, middle-aged or elderly Chemist (single) in adverse circumstances, in return for light and assisted services in a quiet and pretty country village. Apply, Philpotts, Chemist, Newham-on-Southern.

SITUATIONS OPEN—Continued.

AT ONCE.—Assistant for Retail and Dispensing. State age, experience, references, salary required, to S. Prythorah, Chemist, Hanglefuf, Anglesea.

WANTED, at once, Assistant for good-class Retail and Dispensing business; aged about 24; liberal salary. Apply, Jones & Bowles, 3 Newland Terrace, Kensington.

ASSISTANT, aged 25, for brisk business; comfortable home and every consideration to good man. Apply by letter, or personally, to Portway & Co, 225 Jamaica Road, S.E.

WANTED, qualified, gentlemanly Assistant for good-class Retail and Dispensing trade. Apply (by letter only), stating particulars of experience, references, and salary required, to J. H. Cuff, jun., S. Milledra, Now Barnet. All letters not answered in 4 days declined.

MANAGER.—An energetic, obliging, and gentlemanly Manager in Yorkshire (outdoors), to develop a Branch business; a good Prescriber indispensable, and one who is able to introduce Specialties with tact. Apply, with references, photo, and all particulars, to "Norman," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

THE OXFORD DRUG COMPANY require a qualified Dispenser end of October or early November. Also, at once, active young man for Oil and Colour Department, who must be used to Mixing Paint; highest character indispensable; state if member of any Church, salary, and full particulars. Managing Director, Oxford Drug Company (Lim.), Oxford.

WANTED, by October 17, a first-class Assistant (qualified) capable of taking charge of a large business. Must be a good Dispenser, Prescriber, and Counterman; single; aged about 30, highest references indispensable; salary £80 (indoors) or 2 guineas a week and an unfurnished bedroom, and find own board. Apply, Davies, 393 Commercial Road, London, E.

FOR select Pharmacy in fashionable suburb, where I is kept, a thoroughly reliable Assistant, with first-class references; must be a quick, accurate Dispenser, with gentlemanly bearing, pleasing address, and good tact for Retail; one seeking a permanency preferred, who would value short hours and home comforts. Apply personally, otherwise carte and full particulars, to Mr. Aelfold, Surbiton Hill, S.W.

RANGOON.—Wanted an Assistant; Minor qualification; good address and gentlemanly habits, accustomed to first-class trade, and acquainted with the routine of wholesale work; must write well, and be a fair correspondent, thoroughly sober and sound constitution; single, and not over 25 years of age; second-class passage paid out for 4 years' engagement; salary first year, 150 rupees per month, second 180 rupees, third 210 rupees, and fourth 250 rupees monthly (outdoors). Apply by letter, with full particulars, to "Burmah," c/o Messrs. Stroet & Co., Cornhill, London.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

AS Assistant; aged 23; 6½ years' experience; references. Holland, Thorne, Doncaster.

PART-TIME (22); London; 5 years' experience. Baruos, 390 Walworth Road, S.E.

MANAGER or Assistant; aged 32; qualified. H. W., 127 High Street, Ramsgate.

JUNIOR (20); 3½ years' experience; indoors; country. B. J., 31 London Street, Norwich.

LOCUM or Branch Manager; good Prescriber. "Onionel," 64 Dodington Grove, Kennington, S.E.

JUNIOR; near London preferred; disengaged 17th. "Rhei," c/o Mr. Young, Chemist, New Barnet.

PART-TIME; aged 23; evening and outdoors preferred. Joseph Cooat, 23 Champion Grove, S.E.

JUNIOR Assistant; aged 23; London; in good Dispensing business. H., 88 Rhodeswell Road, Lichhouse.

BRANCH or outdoors; qualified; married; Extractor. B. B., 45 College Street, Park, Salisbury.

PART-TIME till 5; outdoors; London; City experience. "Burette," 165 Shepherd's Bush Road.

JUNIOR (23); disengaged; time for study required. Aves, 14 Queen's Parade, Clapham Junction.

ASSISTANT (24½); West End experience; unqualified. "Fides," 71 Weymouth Street, W.

AS Dispenser or Wholesale; outdoors; qualified; experienced. A. P. S., 96 Tunis Road, W.

AS Manager; view to purchase; disengaged. "Nux," Danny Bank, Lethbridge Road, Southport.

DISPENSING by Lady; thorough training; Dispensary experience. N., 26 Vassall Road, Brixton.

JUNIOR (21); 8 years' experience; Churchman; abstainer. S. W., 50 Marrow Street, Peterborough.

WANTED immediately, employment by unfortunate brother Chemist. H., 13 Donlyell Road, Brixton.

MANAGER or Senior; qualified; 48; married; good reference. 2 Albert Street, Wrexham.

ASSISTANT; qualified; 6½ years' experience; abstainer. A. P. S., 170 Falkner Street, Liverpool.

MANAGER; qualified; good references; disengaged. "Chemist," 18 Madoc Street, Llandudno.

JUNIOR (21); 4½ years' experience; disengaged. Hughes, c/o Mr. Williams, 63 West Hill, S.W.

AS Traveller, Drugs or Proprietary. "Ebor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM or Temporary; qualified; experienced; good references. Glover, Princes Street, Cheltenham.

LOCUM-TENENS, or Dispenser to Surgeon; disengaged. Address, W. B., 4 Aston Street, Birmingham.

AS Assistant, or Branch Manager; London; unqualified. "Extractor," 89 Union Road, S.E.

BRANCH Manager; qualified; experienced; single; aged 27. W., 36 Rieaford Street, Hammersmith, W.

JUNIOR (23), abstainer; disengaged; 6 months' London experience. Chadwick, c/o Mr. Kennett, Weybridge.

AS Manager; experienced; single; abstainer. "Veritas," 10 Bond Street, Higher Bronghton, Manchester.

PART-TIME, to attend evening lectures at Wills'; aged 23. "Statim," 40 Hampstead Road, Dorking.

MINOR Student requires evening engagement; experienced. "Minor," 62 Trinity Square, Borough, S.E.

AS Junior; aged 20; height 5 ft. 9 in.; London preferred; 3 years' good reference. A. H., 14 Arcade, Watford.

ASSISTANT; well up in first-class Dispensing and Retail, Prescribing, Extracting. L., 136 Uxbridge Road, W.

MANAGER or Dispenser; qualified; long experience. "Chemists," 98 Marlborough Road, Grandpont, Oxford.

BRANCH Manager; qualified; aged 30; first-class experience. "Chemists," 12 Chesterfield Street, King's Cross.

ASSISTANT; aged 26; Major qualification; good experience; references. "Chemist," 9 Commercial Place, Aberdeen.

YOUTH (18) seeks situation; good all-round knowledge of the trade; long reference. Address, "Fnb," 49 Barnsbury Street, Islington.

AS Manager; aged 34; Prescriber and Extractor; disengaged. "Alpha," Banbury Villa, Putney Bridge Road, Putney.

PART-TIME Assistant (21), in return for board and lodgings; West-end experience. Tattersall, 204 Haverstock Hill, N.W.

JUNIOR (22); 5 ft. 9 in.; good experience. State salary and particulars, "Gentian," Coetmor Mount, Bethesda, N. Wales.

AS Assistant; part-time or otherwise; aged 22. "Extractor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TEMPORARY; qualified (27). Extractor; abstainer; excellent references. Ashton 103 Lordship Road, Stoke Newington, N.

JUNIOR (20½); 5 years' experience; London preferred. State hours and full particulars to Owen, Bodawen, Glanacda, Bangor.

JUNIOR wishes situation in Light Retail and Dispensing business; 4 years' experience; aged 20. Cook, 143 Nethergate, Dundee.

ASSISTANT (outdoors); London; 25; City, West End, and suburban experience. C., 71 Warlock Road, Paddington, W.

OUTDOOR Assistant, or Dispenser to Surgeon; unqualified; aged 28; well up in all branches, Tooth-extracting, Photography, &c.; London preferred, not essential. 132/23, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS WANTED—Continued.

AS Locum or Manager, by the day, week, or month; disengaged; qualified; reference. B. C., 56 Adolphus Street, Deptford, London.

OUTDOOR or temporary; in London or Northern suburbs; aged 28; good address; disengaged. W., 2 Pembury Road, Tottenham, N.

DISPENSER to Surgeon or Hospital; unqualified; outdoors; 20 years' experience; first references. Wood, 22 Elaine Grove, N.W.

A CHEMIST desires to kindly recommend a gentleman as Manager. "Wessex," c/o Messrs. Wright, Layman & Umney, Southwark, London.

ASSISTANT in London; Hall qualification; town and country experience; outdoors preferred. "Ferringious," 43 Trinity Square, S.E.

LOCUM or permanency; experienced; good Dispenser. Prescriber, and Meobanical Dentist; registered; aged 37. Ambos, 16 Bramwell Street, S.W.

TEMPORARY or permanent; in or near Nottingham preferred; good references; varied experience. W., 162 Arkwright Street, Nottingham.

ASSISTANT in best-class Country business; aged 23, outdoors; short hours; good experience; tall. "Stocktonian," 61 Trinity Square, Borough S.E.

AS ISTANT; London preferred; experienced (asie management); nominal salary, with time for classes. E. H., 35 Gladstone Street, St. George's Road.

SITUATION wanted as Manager; 23; qualified; Registered Dentist; abstainer; good references. Apply, 85 Shieldis Road, Byker, Newcastle-on-Tyne.

MANAGER; married; qualified; 14 years' experience town and country; Extractor. 178/7, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; Minor; 25, outdoors; Glasgow and Liverpool experience; good references; Liverpool or Manchester preferred. O., Woodside, Wyke, Yorks.

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Soda " B.P. 16 " "	" "	1/8	Ginger Beer, Glass	--	2/6
Petash " " "	" "	1/8	Linhia, B.P., 5 grains to Half-pint	--	1/-
Petash " B.P. 16 " "	" "	1/8	Iron and Quinine Water	--	1/6
Seltzer	--	1/-	Mineral Acid	--	1/6
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Fertinting Finger Tips, Face and Lips.....	2/6	18/-
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Gives a brilliant shell-like transparency to the Nails	2/6	18/-
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Restores Rough and Chapped Skins to their original softness	2/6	18/-
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Preserves and gives a brilliant polish to the Nails, and prevents Hangnails, &c.	1/6	10/6
CLEANSING FLUID.		
Instantly removes all stains from the surface and underneath the Nails	2/6	18/-
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EMERY BOARDS.		
For bevelling the rough edges of the Nails after use of the file	1/-	7/-
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A valuable novelty introduced in Dr. Paul's system of Manicure to apply the "Cleansing Fluid" under the free margin of Nails, and thus avoid the danger of scratching with steel instruments, 7/- per doz. bundles.

CAUTION!—Dr. Paul's Specialities can be obtained at all first-class Perfumers and Chemists', but many imitations are offered at inferior Stores.

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PLAIN SPEAKING.

The Chemists
of the United Kingdom.

September, 1892.

Gentlemen,

We wish to speak plainly to you on the subject of Pepsin, believing it will be to your advantage as well as ours.

No one can compete with us either in quality or in price, this because of our exceptional position and the chemical talent we employ. A firm that slaughters 1,750,000 pigs a year, and can prepare Pepsin from the stomachs whilst they are absolutely fresh, can well claim pre-eminence, and this we do.

The strength of our Pepsin is never questioned, and we guarantee that each grain we sell will digest 2,500 times its weight of egg albumen.

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For dispensing fluid Pepsin, we offer you our of which contain 1 gr. of

It is absolutely per- from deposit, and many times stronger than other Glycerine preparations of Pepsin, for some of which you pay as much as 14/6 per lb. Ten minims equal in strength 4 grs. Pepsin, B.P.

We will post you our little work containing valuable formulæ of Digestive Medicinal Preparations free.

Six days a week we are personally interesting medical men throughout the Kingdom in our high-test Pepsins, and everywhere with the greatest success.

In the meanwhile we want to show you that it is to your advantage to use our ferments in your everyday dispensing.

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Chicago, U.S.A.

London Office,
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Insoluble, Scale, or Soluble Powder.
PANCREATIN, ... 3/6 per oz.
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Bottles containing 20 ... 8/6 per doz.
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Tabes containing 15 ... 7/6 per doz.

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consent to pay 3/6 to 5/- inferior quality and purchase our 2,500 test can, if you still have a make 4 oz. from each oz. of 3 oz. of milk sugar. buy **PEPSIN, B.P.,** AT startling statement, but your consideration. preparations containing Glycerole, each 10 minims our scale Pepsin.

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"The most elegant and reliable method of administering drugs with which we are acquainted."

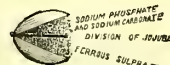
—Braithwaite's "Retrospect of Medicine."

"Palatinoids" well repay the enterprising Chemist to introduce to his local Medical Men, inasmuch as they bear the usual dispensing profit and are certainly the most elegant preparations he can handle. Medical testimony, both of the Profession and Press, has been forthcoming as to the superiority of "Palatinoids" over all other forms of medication in the market—a testimony, we venture to assert, which has never in such a degree been given to any pharmaceutical improvement whatever.

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'BI-PALATINOID' OPENED. (FERROUS CARBONATE) (FERROUS PHOSPHATE)



Before immersion in water.

After three minutes' immersion in water at normal temperature of stomach.

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ACIDS and the SALTS of
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LIME. POTASS. SODA.

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(Dr. J. EMERSON REYNOLDS'S PATENT).

Used in the MODEL DAIRY at the SANITARY EXHIBITION, PORTSMOUTH, gaining an AWARD OF MERIT.

BOTTLES, 2/- SPRINKLERS (Aromatised), 1/-

DISCOUNT ACCORDING TO QUANTITY.

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THE IDEAL NUTRITIVE BEVERAGE.

ESSENTIA MALTI (KEPLER).



The Kepler Essence of Malt is manufactured by a modification of the Kepler process for making the well-known Kepler Extract of Malt.

The Kepler Essence of Malt contains a large amount of diastase and natural mineral phosphates, and a considerable amount of tissue-forming substances. The immense superiority of this preparation over ale and stout is at once apparent when the process of manufacture is considered in detail. In making ale and stout, the carbohydrates (so valuable as nutrient material) and the diastase (a most important principle of Malt, being of special service in errors of nutrition accompanied by digestive derangement) are sacrificed for the production of alcohol: whereas in the Kepler Essence of Malt these are carefully preserved intact. This essence is therefore an ideal aid to digestion and nutrient agent. A wineglassful of the Kepler Essence of Malt contains more elements of nutrition than a pint of the finest alimental stout.

The flavour of the Essence of Malt is delicious. It is admirable as a table beverage, when diluted with aerated water, and as an addition to milk for infant and invalid dieting, for it sweetens it and facilitates its prompt and perfect digestion. The essence may be taken in coffee, gruel, aerated or plain water, wine, or mixed with any farinaceous pudding. As an addition to the food for young children, its value cannot be over-estimated; it increases the value of all farinaceous food, and prevents the starch in such food and large clots of curd in milk diet overtaxing the power of the digestive functions.

For lactating women, the Essence of Malt (Kepler) contains many desirable properties; it quickly increases the flow and enriches the quality of the milk. It is serviceable as a laxative for young children, especially when constipation depends upon the defective digestion of starch. As a food beverage, it cannot fail to be productive of the highest benefit, either in acute disease or during convalescence; in fact, wherever there is defective nutrition, the Kepler Essence of Malt is useful as a nutritive food.

As a Linctus, the Essence of Malt food swallowed slowly in the troublesome dry, laryngeal cough and the hacking cough of puberty or consumption, is pleasantly grateful and soothing, aids digestion, and builds up the tissues.

The Kepler Essence of Malt is supplied to the Trade in champagne pints and quarts, at 14/- and 24/- per doz. Retail, 1/6 and 2/6 each.

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THE "VASELINE" SOAPS

For TOILET, BATH, and NURSERY, are being largely advertised, & command a ready sale on account of their excellence & cheapness.

"VASELINE" SOAP, unscented, each tablet in card case; boxes of 3 dozen tablets.

SUPERFINE ditto, delicately perfumed, card boxes of 3 tablets.

"VASELINE" TAR SOAP, 10 per cent. of tar, card boxes of 6 tablets.

CHESEBROUGH MANUFACTURING CO., 42 HOLBORN VIADUCT, LONDON, E.C.
Proprietors and Sole Makers of the "VASELINE" Preparations.

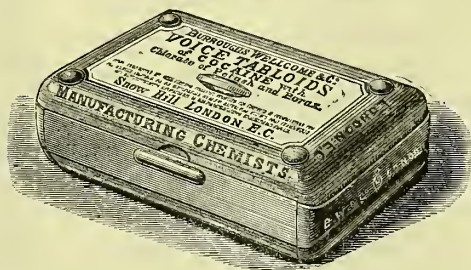
VOICE "TABLOIDS,"

Composed of COCAINE, Chlorate of Potash, and Borax,

Impart a clear and silvery tone to the voice, are easily retained in the mouth while singing or speaking, and are now used by the leading singers and public speakers throughout the world.

DIRECTIONS.—A single "Tabloid" may be slowly dissolved in the mouth to remove huskiness or hoarseness.

Supplied to the Trade in beautifully graven white metal boxes, blue silk labels, 30 and 80 in each, 8s. and 16s. per dozen. Vinaigrette bottles, 30 in each, 8s. 6d. per dozen.



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JAMES WOOLLEY, SONS & CO.

DRUG MILLERS,

WHOLESALE AND EXPORT DRUGGISTS,

AND

MANUFACTURING PHARMACEUTICAL CHEMISTS,

DEALERS IN

Druggists' Sundries, Chemical and Pharmaceutical Apparatus,
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**NEW WAREHOUSE AND OFFICES,
VICTORIA BRIDGE,
MANCHESTER.**

Laboratories and Drug Mills—KNOWSLEY STREET, CHEETHAM.

Telegrams—"PHARMACY MANCHESTER."



ESTABLISHED 1859 AS A MONTHLY. SINCE MARCH, 1882,
A WEEKLY JOURNAL.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE, FINK'S BUILDINGS, MELBOURNE,
AUSTRALASIA.

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Literary Contents.

	PAGE		PAGE
Addresses at the Medical Schools	545	Irish News	538
A Produce-buyers' Defence Association	547	Legal Reports	551
Bankrupt Report	557	Marriages	558
Business Changes	558	New Companies	559
Correspondence:—		Paris Society of Pharmacy	557
Is Water-analysis a Failure?		Personalities	558
Slake; Nix Insana; Non-cutting Arrangements; Irish Pharmaceutical Election, &c.	563	Pharmaceutical Society of Great Britain:—	
Dispensing Notes	564	Council Meeting	540
Miscellaneous Inquiries	565	Opening of the Session	541
Deaths	558	Major Examination	544
Editorial Comments:—		Pharmaceutical Society of Ireland:—	
Sale of Proprietary Medicines	548	Annual Meeting	553
The Position of Ipecac.	549	Scotch News	538
English News	536	Theoretical Science and its Applications	546
French Pharmaceutical News..	539	Trade Notes	558
		Trade Report	550

Summary.

THE Pharmaceutical Society have obtained a conviction against a woman at Birmingham for selling poison.

WE print the questions given in the physics part of the Major examination this month, and answers to them.

THE Royal College of Veterinary Surgeons has proceeded with success against three more persons for using veterinary titles.

THE second annual meeting of Sequah (Limited) reveals a serious loss in the year's trade. The directors give effective reasons to account for this result.

WE give extracts from the addresses delivered by Dr. Luff, Sir John Lubbock, Dr. Bowles, Mr. Hutchinson, and Dr. Mercier at the opening of metropolitan medical schools.

PROFESSOR HARVEY GIBSON opened the session of the Liverpool Junior Association of Pharmacy with an interesting address on the application of theoretical science, which we report.

THE Merthyr magistrates have refused to convict a publican who sold beer containing more than 50 grains of salt to the gallon. Dr. Moritz, Professor Attfield, and Dr. Luff gave evidence for the defence.

THE commercial position of ipecacuanha is considered in detail in our columns. The drug is dearer now than it has been for twenty-six years, although the supplies are much larger than they were at that time.

A MEETING of wholesale buyers of produce was held at the London Chamber of Commerce on Tuesday to form a Trade Protection Association as a counterpoise against the Association of Brokers already existing.

LETTERS have passed between Mr. Ernest Hart and the President of the Pharmaceutical Society, which have satisfied Mr. Hart that the Council are fulfilling their duty in regard to the sale of proprietary medicines containing poisons.

THE Pharmaceutical Council met on Wednesday forenoon for a short time, and in the afternoon the President delivered an address to the students of the School of Pharmacy on the occasion of its fiftieth anniversary. Prizes were also presented.

DR. ROBERTSON, of Anderston, Glasgow, who has established a sugar-coated pill business there, is suing the Caledonian Railway Company for damages in respect of disturbance to his business through railway-making operations beside his shop.

AT the annual meeting of the Pharmaceutical Society of Ireland, held on Monday, which we report fully, the retiring members of Council were re-elected. At the Council meeting held on Wednesday, Mr. Samuel Turkington was selected by the Council to fill the vacancy created by the death of Mr. Doran.

OUR Paris letter contains several interesting notes this week, information being given regarding the filing of prescriptions and the inspection of pharmacies in France. We also report the opening meeting of the Paris Society of Pharmacy, held on Wednesday afternoon, from which it will be seen that the purity of chloroform is troubling our French confrères.

THE CHEMISTS' AND DRUGGISTS' DIARY FOR 1893 is now being prepared. It will contain as a special feature a remarkable treatise on "Diseases and their Treatment," which has been written expressly for this work by a London physician. This will be found to be of great interest and of notable value, and it will render the 1893 DIARY one of the most popular of the long series. The author is one of the modern school of medical men, and in his advocacy of remedies is most eclectic. Advertisers will please

SEND IN THEIR INSTRUCTIONS

for the DIARY as promptly as possible. We make it a point to let our subscribers in all parts of the world have their copies of the DIARY in ample time to have it ready for use on New Year's Day. It is a very heavy work to produce, and to enable the printers and binders to do their work properly we must close for press on October 22. Our Australian copies (which form a very large consignment) will be despatched by the mail steamer

LEAVING LONDON ON NOVEMBER 4,

which could not be done if we kept open for press after October 22. As THE CHEMISTS' AND DRUGGISTS' DIARY is now so universally recognised as the chemist's desk-companion and reference-book, every firm having anything to sell to chemists should be represented in its pages.

Next Week.

THURSDAY, OCTOBER 13.—*Dundee Chemists' Assistants' and Apprentices' Association.* Opening meeting in Gillfillan Hall, at 9.15 P.M. Inaugural address by Mr. Charles Kerr, Hon. President.

THURSDAY, OCTOBER 13.—*Chemists' Assistants' Association, 103 Great Russell Street, W.C.* At 8.45 P.M. Musical and social evening.

English News.

Institute of Chemistry.

This body finds its present office accommodation at Adelphi Terrace inadequate, and is to meet on Friday, October 7, to consider whether premises in which the examinations may be held should not be secured. It is recommended to expend a sum not exceeding a fourth of the invested capital on the purchase of a lease.

Fatal Accident to a Retired Chemist.

An inquest was held on Friday on the body of the late Mr. Bine White Linging, a retired chemist, residing at 51 Carnac Street, West Norwood. The deceased, who was eighty-four years of age, fell in the High Street at West Norwood and broke his thigh, and this resulted in his death, which the jury found was purely accidental. The deceased, who has resided at West Norwood for about twelve years, was very highly esteemed.

Patent Fees.

The new regulations with respect to patents came into operation on October 1. Under the old rule the preliminary fee was 4*l.*, and the renewal fees 50*l.* and 100*l.* in the fourth and eighth years of the patent term, which sums, however, might be paid by annual fees varying from 10*l.* to 20*l.* Under the new rules these heavy instalments of 50*l.* and 100*l.* are abolished and the annual fees are reduced from 10*l.* before the expiration of the fourth, fifth, sixth, and seventh years to 5*l.*, 6*l.*, 7*l.*, and 8*l.*; from 15*l.* before the expiration of the eighth and ninth years to 9*l.* and 10*l.*; between the tenth and thirteenth years, to 11*l.*, 12*l.*, 13*l.*, and 14*l.*, whilst the fees of 3*l.*, 7*l.*, and 10*l.* for one or two or three months' grace for taking out certificates of renewal are respectively reduced to 2*l.*, 3*l.*, and 5*l.*

Chemists' Assistants' Association.

This Association commenced its sixteenth session on Thursday night, at the rooms, 103 Great Russell Street, W.C. Mr. Frank A. Rogers, manager of Corbyn's Bond Street shop, presided, and delivered the presidential address. The Council have prepared a good programme for the first quarter of the session. The following are the items:—October 13, musical and social evening. October 20, Paper: "The Chemistry of the Alkaloids," E. J. Parry, B.Sc., F.C.S. October 27, Discussion: "The Conditions of Labour in Pharmacy," opened by Peter MacEwan, F.C.S. November 3, Paper: "The Prevention of Voice Troubles and Sore Throat," William Hill, M.D. (Lond.). November 10, short papers by members. November 17, annual *conversazione*. November 24, Paper: "The Pharmacy of the Minor Syllabus," Joseph Ince. December 1, Paper: "Six months of Foreign Pharmacy," W. R. Mitchell. December 8, Paper: "Impurities and Mistakes," Dr. Lauder Brunton, F.R.S. December 15, musical and social evening. At the smoking-concert next week Mr. Martindale will preside. Mr. John C. Umney will be accompanist, and Mr. S. A. Walton will be stage-manager. There is a splendid programme for that night, and the chair will be taken at 8.45.

Stealing the Government's Camphor.

At the Woolwich Police Court, on September 30, before Mr. Kennedy, Thos. Martin, a labourer in the Woolwich Dockyard, was charged with stealing six cakes of patent camphor, value 2*s.* 9*d.*, the property of the Government. Chas. Tucker, a house-decorator, was charged with receiving the camphor. Jno. Carter, chemist, said that on Tuesday Tucker and another man (not Martin) brought four cakes of camphor to his shop in Cross Street and offered it for sale. The other man said they had bought it. Witness gave them 2*s.* 8*d.* for the four cakes. Again that morning Tucker came to his branch shop in Angelsea Road and offered more. Witness then communicated with the police. Hy. Jacobs, foreman in the dockyard, said the camphor was served out to keep moths out of the saddles. It was worth 5½*d.* per piece. The Magistrate said Martin would lose his occupation.

Sergeant Gilham said Martin was also a pensioner. Mr. Kennedy fined Martin 3*l.* and Tucker 2*l.*, allowing seven days to pay.

Wine-licences.

A wine-licence has been granted to Mr. W. S. Howarth, 70 Herbert Road, Plumstead. A spirit-licence has been granted to Mr. Bryden, chemist, Barrow.

Messrs. J. Bibbings, Ellis, Jones, and Holloway, each carrying on business as a chemist in Newton Abbot, have all been granted licences to sell medicated wines.

The application for a licence made by Mr. Lawrence Robert Barnes, chemist, Petergate, York, at the Brewster Sessions of that city, on August 30, was adjourned on the ground that the notice had not been given in within the statutory time. The Licensing Committee was to meet again on September 26, but on that day only one member of the committee was present, and as it was necessary that three members should be present before a quorum was formed, no business was transacted. Mr. Barnes remarked that it was very hard on him after he had been put to all the expense of making the application. The one magistrate agreed, and a messenger was despatched in search of two magistrates. The quest, however, was unsuccessful, and Mr. Barnes was informed that his application could not be dealt with. The applicant asked what he could do in the matter? The Chief Constable: Nothing; you will have to wait till next year. [We think the Chief Constable is wrong. If Mr. Barnes can get two magistrates to support him the Board of Inland Revenue will grant a licence until the next sessions.]

A Chemist's Prescribing.

An inquest was held on Monday last, at the Westminster Workhouse, before Mr. Troutbeck, coroner, with reference to the death of Frances Asbury, aged six years, the daughter of a cabinet-maker, of 43 Brewer Street, W. The evidence showed that on last Saturday week the deceased was suffering from a cold, and the father went to a chemist in Wardour Street, and procured a powder, which was given to the child. The next day the child was attacked with severe vomiting and diarrhoea. The father went again to the chemist's on Monday, and having described the symptoms, the chemist gave him a mixture, which was administered to the child, who, however, died early on the Wednesday morning. Charles Cory, of 52 Wardour Street, chemist's assistant, deposed that he was a qualified chemist, but had no other qualification. He admitted seeing the child on the Saturday, and prescribing for it. He saw the father again on the Monday, and prescribed a mixture, the ingredients of which contained, amongst other things, aromatic sulphuric acid and tincture of capsicum. By the Coroner: He prescribed simply because he was asked to do so. The Coroner remarked that the witness must know that he was not allowed by law to prescribe, and it was most improper for him to do so. The witness answered that he gave the particular medicine as the best remedy for the complaint the child was suffering from. Dr. Edward James Nix, of 11 Weymouth Street, W., stated that he was called to see the deceased on Tuesday morning, and found her seriously ill. He prescribed for her, and next morning was informed of her death. He had made a *post-mortem* examination, and found the cause of death was acute peritonitis. Aromatic sulphuric acid and capsicum would only have accelerated the complaint, and no one would have prescribed this if he had known that the child had been suffering from peritonitis. He could not say, however, that the powder given by the chemist had produced the peritonitis, which might have been set up by a cold or by injury. The jury returned a verdict of death from peritonitis, the Foreman stating that most of the jury were of the opinion that chemists should not be allowed to prescribe in any case. The Coroner said that the jury followed his view of the matter, and he must say that he thought it a most improper thing for chemists to take upon themselves the responsibility of prescribing.

Drug-contracts.

Mr. J. P. Leach, of Shoreham, has been selected by the Horsham Board of Guardians to supply expensive medicines to the Union Workhouse.

The contract for "drugs, chemicals, &c.," to be supplied to the Southampton Guardians has again been awarded to

Mr. W. Bates. Only two chemists tendered. A Southampton correspondent calls our attention to the eleventh "condition of contract" stipulated by the Southampton Guardians. It is as follows:—

All drugs and chemicals, or articles to be supplied, shall be of the manufacture of—

Messrs. Howards & Son, Stratford, London
 " Hopkin & Williams, Cross Street, London
 " May & Baker, Battersea
 " Horner & Son, Mitre Square, London

as per order (unless other firms are selected), in the manufacturers' capsules or sealed bottles. All drugs, chemicals, tinctures, infusions, powders, pills, ointments, plasters, extracts, roots, barks, leaves, and all articles or preparations ordered to be supplied to be of the standard strength and of the first quality and selected purity, and made in strict accordance with the formula of the British Pharmacopoeia, 1885. Each article supplied to be labelled and invoiced with manufacturers' names. All bottles, jars, boxes, or casks to be capped or sealed as above, and a label fixed across the top of the bottle or jar, and the weight of bottle or jar marked thereon, and the weight of article ordered. The quantity ordered not to be exceeded. All drugs, chemicals, and similar articles to be of the weight of 16 oz. to the lb. All other pharmaceutical tinctures, drugs, chemicals, articles, or preparations not included in this form of contract shall be supplied in accordance with the above conditions when ordered, at 5 per cent. above the current prices of the manufacturer selected. Goods to be packed in hampers, and all packages, bottles, or empties to be credited at the same rate as charged, when returned in good condition.

The tender of Mr. J. Griffith, Farnham, for drugs has been accepted by the Farnham Board of Guardians.

Mr. Timothy White, chemist and druggist, of Portsmouth, Southsea, and Gosport, has been selected by the Portsmouth Town Council for the supply of disinfectants.

Selling Morphia.

Mr. Troutbeck held an inquiry at St. George's Hospital on Monday concerning the death of Ahojilla Chakravarti, aged 21 years, an Indian law-student, who committed suicide in Messrs. Spiers and Pond's refreshment-room at South Kensington Station on Thursday last. Ernest James, chemist, of South Kensington, said that the deceased went into his shop adjoining the station between 6 and 6.30 P.M. on Thursday and handed to witness an order for 60 grains of morphia, saying that he required it for hypodermic injections. He told witness he was a member of the Royal College of Surgeons, and from his manner and conversation and the knowledge he displayed witness had no reason to doubt the truth of his statement. He appears to have gone with this to the refreshment-room at the South Kensington Station, and having had some brandy, asked for a glass of water, into which he emptied a powder. After stirring it up with a spoon he drank the greater part. A few minutes afterwards he fell forward on the table. The police removed him to St. George's Hospital, where he died. The jury returned a verdict of suicide while temporarily insane, and added an expression of opinion that the chemist had shown carelessness in selling the morphia.

About a Gout-specific.

Mr. Narcissus Pinch recently invented a gout-specific, and instructed Walter Alfred Barlow, a Chancery Lane patent agent, to protect the idea for foreign countries. There appears to have been a hitch somewhere in the patent agent's negotiations, for on Tuesday Mr Barlow appeared at Bow Street charged with obtaining money by false pretences. Mr. Pinch said that this was not the first transaction he had had with the accused. He had agreed to pay accused 40% to take out the patents. He paid him 20% on account. He did not know what the accused had done towards getting the patents, nor whether he had had to make considerable disbursements. The false pretence was that the accused said that he would let him have the certificates in a fortnight. Mr. Vaughan thought it looked like a case of attempting to obtain a further payment by false pretences. He remanded the accused on bail, it being understood that arrangements should be made, if possible, to complete the patents in the interim.

A Dispenser's Salary

Dr. Hunter moved, at the meeting of the Holborn Board of Guardians, on Wednesday, that the salary of Mr. Herbert H.

Hewitt, dispenser, be increased from 100% to 125% per annum. The Local Government Board allowed 130% for such appointments, therefore he did not think the Guardians would object. Mr. J. F. Kelly seconded, remarking that it was little enough for a properly qualified man.

A Chemistry Lecturer.

In the Westminster County Court, on Tuesday, before his Honour Judge Bayley, Mr. Larnier applied for the committal of a Mr. Garson, who was said to be a medical man, carrying on business at Regent Street, Piccadilly. There was no reason, the plaintiff said, for the defendant not having paid, as he occupied expensive premises in one of the leading West-end thoroughfares, and, besides that, he had held a lucrative engagement as lecturer at one of the principal London hospitals. The defendant appeared in answer to the summons, and denied that he occupied expensive premises, or that he held a position as hospital lecturer. It was true he formerly held that appointment, but it had now ceased, and his business was such that it was really impossible for him to pay the money all at once. He would, however, do his best to pay a small instalment monthly, if such an order was made. The Judge made an order for payment of 10s. a month.

The Salford Analyst on Adulterated Drugs.

Mr. J. Carter Bell, the Salford borough analyst, reported on Wednesday that in the quarter ended September 30 he had analysed 198 samples. "The nine drugs consisted of six citrate of magnesia, and three of cream of tartar. The six samples were brought to me plainly labelled citrate of magnesia; no other marks or words were upon the labels, and my duty is to say that the contents of the packets did not correspond with the labels. The contents were simply made up of Epsom salts, sugar, tartaric acid, and carbonate of soda. It would have been far better if the vendors had labelled the samples magnesia mixture. One sample of cream of tartar consisted of sugar, tartaric acid, and carbonate of soda. This I do not consider a genuine case of adulteration, but only one which shows up the gross ignorance of the shopkeeper, in calling such a mixture cream of tartar. One could quite understand such a man giving oxalic acid for Epsom salts and laudanum for syrup of senna. Two of the cream of tartars were adulterated with sulphate of potash. I shall be told that this is not an adulteration, but when a foreign substance is deliberately added to a very pure article to reduce the quality, I can look upon it in no other light but adulteration."

Arsenical Ointment.

At the Portsmouth Police Court on Wednesday, William Bennett appeared to an adjourned summons for alleged cruelty to a mare belonging to a dairyman named Evans, by the application of a blister containing arsenic, which had caused painful sores. Mr. Clark prosecuted for the R.S.P.C.A., and defendant was represented by Mr. E. J. T. Webb. The adjournment had been made in order that an analysis might be made of the ointment supplied by the defendant, and of the soap which was afterwards used to wash the animal's back. Dr. B. H. Mumby, who had analysed the ointment, said that it contained about 8 per cent. of arsenic. Such an ointment, even if applied to a healthy skin, would cause severe blisters, and would greatly aggravate an old sore. The soap was ordinary yellow soap. The washing-off of the ointment would tend to relieve the horse. Defendant said he had no intention of committing an act of cruelty, and fully believed that the ointment would have a beneficial effect, as it had had in some similar cases previously. He did not profess to be a veterinary surgeon, but he supplied ointments and drugs for the use of veterinarians and others. The magistrates retired for nearly an hour, and on their return into court said they had decided to dismiss the case on the ground that the ointment was not supplied with any intent to do the animal harm. They observed, however, that the case was one which the Society were amply justified in bringing into court.

The Holborn Guardians' Drug Contract.

At a meeting of the Holborn Guardians, on Wednesday evening, the Clerk read the following letter he had received

since the last meeting of the Board, from the firm that supplied the drugs under last year's contracts:—

4 Jewry Street, London, E.C.,
29th September, 1892.

To the Guardians of the Holborn Union.

GENTLEMEN,—At your meeting for the consideration of the various tenders for the supply of your Union—amongst others the drug tender—certain statements were made at the Board detrimental to us. These appeared in the public papers, notably *THE CHEMIST AND DRUGGIST*, and one of the local papers, and we feel we should not be doing justice to ourselves without approaching you on the matter, trusting for similar publicity. We believed and hoped we had supplied satisfactorily, as we have always tried to do, and from the fact that there has never been a complaint, and also that your medical superintendent at Archway Road was quite satisfied, and expressed himself so, we feel very sorry that, because our discount was large, and we had worked at a smaller profit than some houses would have done, the stigma of "cheap drugs" should have been applied to us. We sincerely trust these facts will be remembered by you when your tenders appear again, and we may be privileged to compete. We have valued your confidence, and can conscientiously say we have always endeavoured to deserve it.

Yours, &c.,
BAISS BROTHERS & Co.

Mr. Dixie moved, and Mr. Langley seconded, that the letter be received, which was adopted without discussion.

Scotch News.

A Fire

was found attacking the premises occupied by Mr. David Ritchie, chemist, Market Street, Aberdeen, early last Friday morning. A policeman gave prompt information, and serious consequences were happily averted. The premises were closed the previous night by Mr. Ritchie's assistant, and the origin of the fire is not known. The damage is covered by insurance.

Selling Methylated Spirit Without a Licence.

At Mid-Lothian Justice of Peace Court on Monday, Joseph Jacob Nelson, chemist, Canonmills Bridge, Edinburgh, was fined 30s. for having contravened the Revenue Act, 1839, by having on August 22, in his premises at Canonmills Bridge, sold a pint of methylated spirit without being duly licensed to do so. The defendant, we understand, had purchased a business the previous proprietor of which was licensed, but had not himself obtained the necessary authorisation.

Edinburgh Personalities.

Mr. J. Laidlaw Ewing, chairman of the North British Branch of the Pharmaceutical Society, is at present spending a holiday in Rome.

Mr. William S. Glass, chemist, 43 Clerk Street, Edinburgh, has taken Mr. George Innes, chemist, his brother-in-law, into partnership. Mr. Innes has been associated with Mr. Glass in the management of this business since Mr. Thomas Fairgrieve retired from it in 1883. The designation of the co-partnership will be Glass & Innes, manufacturing and dispensing chemists.

Mr. John Brown, who has been identified with pharmacy in George Street, Edinburgh, for a long period, first as an assistant in the late Mr. John Mackay's establishment, and for the last eleven years with Mr. Burley, has purchased the chemist's business formerly carried on by J. Robertson & Co., at 5 Alvanley Terrace, Edinburgh.

Mr. George Mackie, manager of the Scottish Drug Depot (Limited), Edinburgh and Leith, was on Friday evening, September 30, presented with a silver tea-service and reading-lamp by the employés of the firm, on the occasion of his leaving Edinburgh for Glasgow.

Mr. R. C. Cardno has taken over the business lately carried on by Mr. J. M. Grant, at 87 Lothian Road, Edinburgh, and which previously belonged for many years to Mr. D. Steel.

On Second Thought.

One night last week a cow, on the road to Bonnyrigg Slaughterhouses, entered a druggist's shop, and the pro-

prietor breathed a sigh of relief when it left without doing damage; but the cow took other thoughts, and, returning, smashed the glass door.

Dundee Assistants' Association.

The session of this Association will be opened next Thursday evening with an address by Mr. Charles Kerr, one of the principal chemists of the town, and a hearty supporter of the Association.

The Conference Photo.

The gentlemen who had charge of the photograph of the Killin excursionists undertook a big thing when they promised to supply a key with each copy of the photograph. This key is now ready, we understand, after infinite labour on the part of Mr. Rutherford Hill, and it will probably be one of the most valued records of the Conference.

Edinburgh Infirmary Pharmacopœia.

After an interval of nearly a century the Royal Infirmary of Edinburgh is this week supplied with a pharmacopœia. Mr. Charles Arthur, chemist to the Infirmary, is the author of it, and he has published the book in a style of sumptuous elegance quite unusual in books of the kind. Of the contents we shall have something to say later on.

A Doctors' Union.

It is announced that the medical men of Coatbridge, at a meeting held last week, unanimously resolved on a fixed scale of minimum fees to be charged except to club patients, and they are to issue quarterly among themselves a list of bad payers, so as "to prevent a certain class from going the round and choosing the cheapest as the best."

Ambulance Instruction for Glasgow Chemists.

A very successful ambulance class for Glasgow chemists, conducted by Dr. Lees, in his pharmacy class-room at 180, West Regent Street, was brought to a close on September 30, when fifteen students presented themselves for examination, and were highly complimented upon their efficiency. The class was generally held on Sunday afternoons, and was well attended by masters, assistants, and apprentices.

Ammonia-poisoning.

On Tuesday, October 4, a boy of 10 months, in Peterhead, while lying in a cradle, had administered to him by his sister, aged 2½ years, some ammonia from a bottle, and died shortly after in great agony.

Glasgow Chemists' and Druggists' Association.

A full meeting of the representative committee appointed in spring to promote the formation of the new Chemists' and Druggists' Association, was held last week. Office-bearers were nominated, and the names are to be submitted at a general meeting of the trade to be held next week.

Irish News.

Business Change.

Mr. James Michie, L.P.S.I., assistant to Messrs. Hayes & Co., Dublin, has purchased the retail drug and compounding establishment at Main Street, Blackrock, co. Dublin, which has been conducted for the past twenty years by Mr. R. Donovan, L.P.S.I.

The Reduction of Penalties by the Lord Lieutenant.

The question of the mitigation of fines inflicted on illegal compounders by the Lords Justices or the Lord Lieutenant will be brought before Parliament next session.

Methylated Spirit for Making Liniments.

Chemists throughout Ireland seem to be unaware that on application to the local Excise authorities they can obtain a special book of requisitions for methylated spirit suitable for making the following liniments:—Aconite, belladonna, camphor compound, and saponis. They must state the quantity they annually require and undertake to store it dis-

tinctly apart from their stock of ordinary or mineralised spirit.

Reporting a Contractor.

Dr. Jacob, of Maryborough, recently reported Messrs. Leslie & Co., the contractors for medicines, to the Board of Guardians, for delaying to supply medicines and disinfectants urgently required. Messrs. Leslie proved to the satisfaction of the Guardians that they had despatched the goods on the day they received the order, and that Dr. Jacob had refused to accept delivery from the railway company, as the hamper was addressed to Dr. Jacob himself, instead of to the Guardians.

The New Council's Rules.

The October meeting of the Council of the Pharmaceutical Society was held on Wednesday, October 5. There was a large attendance. Mr. Hayes and Mr. Beggs, the President and Vice-President during past year, were unanimously re-elected to those offices. Mr. Hodgson was re-elected Treasurer. Mr. Samuel Turkington, chemist and druggist, Cookstown, Co. Tyrone, was co-opted a member of the Council to fill the place of Mr. Doran, pharmaceutical chemist, deceased. Mr. Turkington is a retail druggist. Notice of motion was given relative to paying the travelling expenses incurred by country members attending Council meetings.

French Pharmaceutical News.

(From our Paris Correspondent.)

STATISTICS OF STUDENTS.—The last yearly census of students in the schools and faculties of "superior learning" in France shows a total of 22,328, as against 20,785 last year. These figures apply to the seats of learning governed by the State. Those under Catholic control show 1,022 students, as against 931 last year. The faculties of pharmacy and medicine belonging to the State have 4,500 adherents in Paris, as against 3,549 in the provinces.

THE INOCULATED CORRESPONDENT of the *New York Herald* arrived in Paris last Sunday evening, having apparently exhausted his fields for experiments. After leaving Hamburg he visited Berlin, but there he found himself in the position of the uninvited visitor—most welcome when he had left. The representative of THE CHEMIST AND DRUGGIST had a few minutes' conversation with Mr. Stanhope last Tuesday. The experience he has undergone in "Ward F" has left him looking more aged than when he left Paris a fortnight ago. He speaks without reserve of the tests he made in the Hamburg Hospital, and certainly considers he has served the cause of science.

THE PRESERVATION OF POTATOES.—The Société d'Encouragement has awarded a prize of 2,000f. to M. Schribaun for his discovery of a method for preserving potatoes. The process is to plunge the vegetables in water containing $1\frac{1}{2}$ per cent. of commercial sulphuric acid. For potatoes with thick skins he uses a solution of 2 per cent. and allows them to remain a few hours longer. After the immersion the potatoes should be allowed to dry thoroughly before packing; they will keep for more than a year. Analysis has proved that the concentration of the liquid remains the same however frequently it may be used. Any kind of tub or receptacle may be utilised for the treatment without there being any fear of affecting the wood. An oak plank has been allowed to remain nine months in a solution of sulphuric acid of 2 per cent. without presenting any trace of change. [This is old.—ED.]

PHARMACY AND PARIS CITY DUES.—M. Ch. Buchet, of the Pharmacie Centrale, has commenced a campaign against the Paris octroi. For some time past there has been a considerable divergence of opinion amongst the excisemen at the various gates of the city as to the definition of medicaments. Such substances pay no dues. M. Buchet has addressed a memorial to the Prefect of the Seine in the hope of getting the matter settled in a satisfactory manner. He traces the history of the octroi as applied to pharmaceutical preparations, and shows that for more than a century it has

been customary to allow free entry to all products used in therapeutics. Certain articles, especially those containing alcohol, have given rise to frequent causes for law-suits, but such trials before the Paris law-courts have generally ended favourably for the manufacturers. It is anticipated that a deputation of Paris pharmacists will shortly have an interview with the Prefect, as the most simple means of settling the questions in litigation. The memorial adds that it was originally intended to bring up test-cases for trial, but such a course was abandoned in the hope that the Administration would meet pharmacists in a reasonable spirit.

THE PROPERTY OF PRESCRIPTIONS.—M. G. Bogelot, the lawyer of the General Association of the Pharmacists of France, advises that the pharmacist has no interest to keep prescriptions, his responsibility being better covered by a copy in his prescription-book. In reviewing the French law on the subject, M. Bogelot finds the first reference to the matter in art. 6 of the Law of October 29, 1846. Therein it is laid down that pharmacists must copy in a special register, kept for the purpose, all prescriptions containing poisonous substances, and must stamp them with name, address, date, &c. The book has to be kept during at least twenty years, and must be produced at any requisition by the proper authorities. The new Law on pharmacy now before the French Parliament, which has already passed a first reading, contains the following references to recipes: (1) "If pharmacists retain a medical prescription they must, in case of request, deliver a proper copy." (2) "A medical prescription prepared in a pharmacy must only be returned after the pharmacist's name has been stamped on it." M. Bogelot points out that neither the Law of 1846 nor the proposed new one is particularly clear on the subject.

INSPECTION OF PHARMACIES IN FRANCE.—"Once a year," writes an Anglo-French pharmacist, "usually in the month of July, we are accustomed to receive the visit of the inspectors appointed by the Prefect of the department to report on the management of the pharmacy, to investigate the quality of all chemical and galenical preparations in stock, and also to see that all the precautionary measures enacted by law respecting the storage of poisons have been duly complied with. The 'membres du jury' comprise a doctor of medicine, a pharmacien, and a professor of chemistry. Legally, the pharmacien appointed should hold a diploma of the first class. We know of an instance, however, where the influence of the mayor has prevailed on the Prefect to select a *confrère*, who does not possess the higher qualification, although a strong supporter of our chief magistrats at electioneering periods. The inspection, which one would be apt to consider a formidable affair, is a pure formality, and altogether a farce, having no practical use whatever. The public, for whose benefit the law was made, derives no advantage from the Act, the inspection, as carried out by those appointed, affording no protection. After a few minutes' conversation with the proprietor of the establishment on matters foreign to pharmacy, one of the inspectors writes out a document, certifying that the undersigned members of the Hygienic Committee, having carefully examined the officine of M. —, found it scrupulously clean and well supplied with drugs, all of which are prepared in strict accordance with the Codex. If all our preparations were made according to the Codex, we should be unable to dispense either English, German, or Russian prescriptions. The International Pharmacopœia, which we have been threatened with, having not yet made its appearance, we are naturally compelled to keep a stock of medicines prepared in accordance with the Pharmacopœias of their respective countries. The authorities are well aware of this, though they pretend to ignore the fact. The fee imposed is 6f. This sum is collected with the annual taxes."

PATENT-STOPPERED BOTTLES AND CHOLERA.—The Hamburg papers call attention to the danger which, they allege, lurks in the use of so-called patent-stoppered beer and mineral-water bottles. The space between the indiarubber ring and the neck of the bottle, it is averred, affords especial facilities for the shelter of disease-germs, and provides them with a safe breeding-place. For this reason the use of corked bottles only is recommended.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

ON Wednesday forenoon, at 11.25, the Council resumed public business after a two months' interval. There were present—Mr. Michael Carteghe, President, in the chair, Messrs. Abraham, Allen, Atkins, Bottle, Cross (Vice-President), Greenish, Grose, Hampson, Hills, Johnston, Leigh, Martin, Martindale, Newsolme, Richardson, Schacht, Southall, and Storrar.

The proceedings lasted exactly an hour, and were exceptionally dull. First the PRESIDENT had something to say about the

FLÜCKIGER TESTIMONIAL.

As we have already reported, he had received from the German pharmacognosist a bronze replica of the medal which had been presented to him, and which, said Mr. Carteghe, is a most beautiful work of art. The professor proposed to invest the money in Switzerland, as being a neutral country, and to give it in charge of Swiss trustees. He did not like the scholarship idea, and would rather devote the revenue to paying for an international trip to deserving students. All this was set forth in a letter which the President read, and he concluded by formally presenting the replica to the Society. There was some applause, and after the election of a few members, &c.,

THE FINANCE REPORT

was read by the SECRETARY. The income since the end of July has been 1,850*l.* 2*s.* 6*d.*, of which 111*l.* 6*s.* was for penalties and costs paid by infringers of the Pharmacy Act, 13*l.* 16*s.* 6*d.* for subscriptions, and 1,725*l.* for examination fees. These sums, with the balance in hand, made 2,542*l.*, and of this 2,415*l.* was wanted for accounts and October expenses; 103*l.* was received in August for the Benevolent Fund, and 235*l.* in September. The expenses and accounts above mentioned were mainly for printing, salaries, research, and current expenses—700*l.* for London and 200*l.* for Edinburgh. The PRESIDENT had little to say about the report in moving its adoption. The penalties were obtained, he remarked, in July, and there were a good many more to come from the solicitors.

BENEVOLENCE

was the next theme submitted for consideration. The committee had eight cases to settle, and only one of them did they not entertain. Of the rest one got a grant of 13*l.*, to give 5*s.* weekly for a year, five got 10*l.* each, and one 5*l.* The name of one applicant was placed on the provisional list for annuities. The Secretary was authorised to attend the election of applicants for admission into the Wanstead Orphan Asylum—this on behalf of a boy Wilkinson. A report of the present condition of the fund and the number of annuitants was submitted, which showed that during the year nine receiving the charity have died, leaving forty-two annuitants. The committee proposed to have an election of four annuitants on December 8 next, and for these the names of eight candidates were submitted in committee. The report was a long one, and was adopted on the motion of the VICE PRESIDENT, who specially appealed for votes on behalf of the boy Wilkinson. This is the last time he has a chance of getting into the Wanstead Asylum, and it is urgent that those who can give votes, either direct or for exchange, should send them into Mr. Bremridge. Whether there should be

FOUR OR SIX ADDITIONAL ANNUITANTS

was a matter which was separately discussed.

The VICE-PRESIDENT, having submitted the formal motion to elect four.

Mr. BOTTLE expressed his regret that the committee did not recommend a larger number. Six it should have been, as it generally had been, unless on a few occasions when the committee, as now, were frightened. He was sure that if they adopted the larger number there would be sufficient sympathy with them to provide the money. (Hear, hear.)

Mr. HAMPSON said they must be prudent. They gave

more money to the annuitants now, and the fact that they only proposed to elect four showed that they wanted more money. With a very little help they could elect six, and as this was a very happy time for people to become subscribers, he trusted that 500*l.* more would be forthcoming. He again protested against what he called the pharmaceutical benevolent race. It was too bad, disgraceful, to set these poor old people to climb over each other's shoulders into an annuity, when they could settle it as nicely by a committee of the subscribers.

Mr. HILLS said that when the proposal for increased annuities was under discussion he was assured that the number would not be reduced. The committee's proposal now showed how far that was correct.

Mr. ATKINS, much as he sympathised with Mr. Bottle, saw no alternative to the committee's proposal, and he regretted also that all the eight cases were equally strong cases, and that only four of them could be satisfied now. The facts were that they had now thirty-six annuitants at 50*l.* and six at 40*l.*—altogether, 2,040*l.* With the four to be elected the expenditure would be 2,240*l.*, and they could not venture to increase that without suppressing casual grants. None would agree to that. They had just voted about 100*l.* on that account, which showed that there was a way of relief which was always going on, and which was good for the poor people although not permanent. He hoped that the trade would now respond generously to this appeal for more funds.

Mr. STORRAR said the position of affairs was this. In 1893 they would require 2,040*l.* for the present annuitants. Casual grants would bring the sum up to 2,500*l.*, and the four new annuitants to 2,700*l.* In 1891 their income was 2,500*l.* and up to date 2,130*l.* had been received this year. So they were really going 200*l.* beyond their income, and an appeal to their constituents became highly necessary. (Hear, hear.)

Mr. SOUTHALL thought the committee lacked courage, and that they ought to be ashamed to go to the country with an election of four. He was sure if they put on six they would get the money.

The PRESIDENT thought that the committee was a little bit weak. They seemed to forget that the principle of having the money in hand for the annuities was departed from long ago, when it was resolved to pay them out of subscriptions as well as interest. The Council had resolved to increase the annuities, but they had not paid a bit of the money away yet, and on the very threshold of the new régime the committee began to look frightened. He would be disposed to go as far as could be done, for his experience was that when you help a man, then pass round the hat, you get the money. He said, as President and as a man of business, that that was the principle for the Benevolent Fund.

Mr. RICHARDSON was surprised at the President. It was not sound finance to spend your money and then go and collect it. He had heard Mr. Sandford condemn that principle. He protested against Mr. Hampson bringing up again the subject of election, which had been debated over and over again. It was extremely regrettable, he continued, that the chemist and druggist element contributed so little to the fund, although they took so large a share of its benefits. Three or four that very day were relieved who were not connected with the Society. It was hard that those who do the toil and work should have to contribute to the support of those who did not subscribe to the fund. He hoped that this would be made the occasion of beating up the country for subscriptions.

Mr. MARTIN maintained that the committee had acted wisely; they were prudent.

Mr. SOUTHALL: Yes; but you have 1,000*l.* to begin with.

The PRESIDENT: And if you spend the money you can get it.

Mr. SCHACHT suggested that each of the twenty-one members of Council should undertake to collect 20*l.* by personal appeal.

Mr. HAMPSON: That plan would have to be kept up every year.

Mr. SCHACHT: Not necessarily. Once people subscribe they generally continue.

Mr. HAMPSON: I would rather have the President preach a sermon on benevolence. (Laughter.)

The PRESIDENT: I don't agree with that. (Renewed laughter.) The result would be that we should get donations, and what we want is subscriptions. Donations have to be invested. We want each generation to support their own poor, and I am confident they will if you trust them, and approach them in the proper way.

The motion was then agreed to, a few minor resolutions were passed, the PRESIDENT read his correspondence with Mr. Ernest Hart, and the reporters left the Council considering "general purposes," which covers a multitude of things.

OPENING OF THE SESSION.

THREE o'clock on Wednesday afternoon was the hour fixed for celebrating the fiftieth anniversary of the opening of the School of Pharmacy. Mr. Carteighe was punctual, and when he came in with Professor Dunstan, Dean of the School, a splendid audience faced him. Councillors, examiners, professors, members, students, were there to the repletion of the benches, and there were ladies galore. What more was wanted to cheer the men who did well last year, and to enthruse the striplings who are beginning now? If anything, it was there in Sir Richard Quain, the President of the General Medical Council, Sir George Buchanan, ex-Chief of the Medical Department of the Local Government Board; Professor Armstrong, Hon. Secretary of the Clinical Society; Mr. Ernest Hart, of the British Medical Association, and several other notable outsiders. The PRESIDENT at once set to business by

CALLING UPON THE DEAN.

Professor DUNSTAN accordingly read his report of the past session. It was interesting. There were 94 students at the school, a number above the average of the last ten years, and 17 above 1890-91. There had been increased accommodation in the pharmacy department, and the lectures in chemistry had been supplemented by a course delivered by Mr. T. S. Dymond. Thirty-six attended this branch. The work was excellent, the conduct good, and the Bell Scholars had carried off both medals, Gane taking the bronze, and Jowett the sessional silver medal. In practical chemistry there were 66 entries, and 6½ months with four hours work per day was the average put in by each student. Jowett took the bronze, and Shaw the silver medal. In botany there were 43 students, and here Jowett gained both the bronze and silver medals. Pharmacy and dispensing were patronised by 35 students in the winter months, and 33 in the summer. Shaw came out best for the bronze medal, and Gane the best possible (100 per cent.) for the silver. Materia medica had 37 students, and Gane secured both the medals. The Dean then referred to the fact that the Bell Scholars had singularly distinguished themselves in the open competition, and Jowett had been awarded the Redwood Research Scholarship. Reference was also made to the loss of Emeritus Professor Redwood, the last of the group of professors appointed when the school was founded, fifty years ago. That fact was further alluded to, but it was lightly touched, as it was to form "the theme of the address by the distinguished former student of the school, now President of the Society." (Applause.)

PRESENTATION OF PRIZES.

The DEAN then called upon the students who had distinguished themselves, and as he went from the modest man with the single certificate to him who was loaded with bronze, silver, and parchment the acclamation ranged from piano to the wildest fortissimo.

The "Herbarium prize" competition next came before the President, and he announced the successful competitors to be:—Mr. W. J. Brown, of Dover (silver medal); Mr. G. T. Branch, of Cambridge (bronze medal); Mr. Sidney Davis, of Gloucester (certificate of honour); and these gentlemen came forward to receive their prizes and the usual applause forthwith.

The PRESIDENT then presented Mr. Thomas Hanbury's prize of books to Messrs. Jowett, Shaw, and Gane, the silver metallists.

Mr. W. A. SHENSTONE, as one of the examiners for the

Pereira and Council medals, reported that as regarded the quality of the work done, both Mr. Druce and himself were exceedingly gratified with what they saw of the work of the school through the examination. The marks in botany, materia medica, and chemistry, were very considerably above the minimum. It had occurred to him when setting the papers, that it was almost a pity that such an important prize should require such a short examination, and he suggested that, if possible, the candidate should be examined in practical as well as theoretical chemistry, even if they had to extend the time. The Pereira medal had been awarded to H. A. D. Jowett, and the Council prizes to E. H. Gane and George Baxendale.

The PRESIDENT then presented the prizes to Messrs. Jowett and Gane amidst renewed applause, Mr. Baxendale being absent.

Mr. DAVIES, one of the examiners for the Jacob Bell Scholarships, reported that 27 candidates competed for the scholarships, and the minimum number of marks was 267, or about two-thirds of the maximum standard. The successful candidates were Thomas Tickle and Ernest Goulding. Those students were shortly afterwards called up by the President, and received the Hills gift of books amidst loud plaudits.

The PRESIDENT then reported, as Chairman of the Research Committee, that the Redwood Scholarship had been awarded by the Council to Mr. H. A. D. Jowett, who would be required to work in the Research Laboratory next session. The Council, he thought, had made a good choice.

THE ADDRESS.

The PRESIDENT, who was received with loud applause after rearranging the audience and settling down the hitherto somewhat demonstrative students, said that in a weak moment he had yielded to the request of the staff of the school that he should deliver the introductory remarks usual at the commencement of the session. He was described in the invitation as an "old pupil." He thought that the term indicated slightly a form of reproach, and, to his mind, "former pupil" would have been better. (Laughter.) He had learned, as everyone knew who got to 50 years of age, that the older one became the more and more one became a student. (Applause.) Probably there was no one in the Society who knew more of the ways and doings of everything educational in that house than the old pupil who was now addressing them, and it was necessary for him at the outset to answer the question, "Who founded the School of Pharmacy fifty years ago?" The men who founded the School of Pharmacy were the men who founded the Pharmaceutical Society a year before. They conceived the notion that the best defence against any aggression from without in future to the young chemist and druggist would be to educate him; and so they applied for a Royal charter, and claimed that their objects were to protect the interests of the chemist and druggist, and to advance chemistry and pharmacy. He claimed that in the charter, and in what the founders did at that time, they exhibited a knowledge of the future wants of the trade in a manner that many of those present had lost sight of. There were amongst them some eminent men. William Allen, for instance, was a man of very considerable parts; Jacob Bell himself, Peter Squire, John Savory, and a number of others, all of them men of very great knowledge and eminent in regard to pharmacy. They felt that, if pharmacy was to stand before the public and before the medical profession in the future as a distinct calling, it was essential that everyone connected with it should be educated. They secured the services of the most eminent men that could be obtained at that time in the respective

SUBJECTS TAUGHT IN THE SCHOOL.

Anthony Todd Thomson came from Edinburgh, the cradle of scientific medicine then as it is probably now; Pereira, who had already made a name in materia medica, was the first professor of that subject; Fownes, the chemical genius, who would have been one of the most brilliant philosophers of the century had he lived, was the first professor of chemistry. Redwood belonged to themselves, and he was appointed professor of pharmacy. It was no discredit to Redwood to say that he was not then a profound chemist. He had been brought up very nearly as an apothecary, and he had, up to

the foundation of the Society, not had many opportunities of acquiring chemical knowledge. He succeeded Fownes as professor of chemistry, with pharmacy attached. Pereira was undoubtedly the most enthusiastic man in connection with *materia medica* that ever lived, and, moreover, he had the courage to enforce upon his audience, wherever they were, the importance of the purity of that class of drugs which were difficult to identify by chemical analysis. He really was a crusader against adulterations, and, backed by the Council of that Society, he succeeded in ten years in practically getting rid of a number of spurious drugs and of adulterated drugs which had been common in the London market, and the London market in regard to drugs was the market of the world. (Applause.) The recognition of his services took the form of the Pereira medal which they had just been awarding. He was succeeded by their dear friend Professor Bentley, whom he saw smiling over there in the corner—(loud applause)—and as Anthony Thomson died about the same time Bentley became joint professor of botany and *materia medica*. As to Redwood, who died only last year, he was the continuous hard working professorial *attaché* of the Society for very nearly fifty years, and as such his services were very nearly indescribable, and the Council could never pay him for those services. He was a hard-headed Welshman, and his best points were that when he was placed in a difficulty, when he really had some difficult problem to solve, then he was at his best. He was essentially a physicist, and in that respect of very great service, again, to the Society. His powers of devising physical apparatus were considerable, and the chemical laboratory they now possessed was devised by him. That was his strongest point, and if he had to lecture upon a subject which was partly physical and partly pharmaceutical he was *facile princeps* on such a thing.

At that time the subjects taught in the school were botany, *materia medica*, chemistry, and pharmacy. In due course a chemical laboratory was adapted in one of the kitchens of the house not far from where he now stood. (Laughter.) It was the first public laboratory open to students for the teaching of practical chemistry in London. After a time Jacob Bell saw the importance of having a good laboratory, and some considerable time before his death he made arrangements that in the event of that occurring a sufficient sum of money should be placed at the disposal of the Society to build a proper chemical laboratory. In 1850, after his death, when the legacy was handed over, the laboratory now under the direction of Professor Attfield was built.

THE PHARMACY ACTS.

Previous to 1850, and, in fact, from the first foundation of the school until the year 1852, Bell and others had been working to attain powers by which either there should be a restriction in regard to the name or the title or as to the carrying-on of business by pharmacists—a restriction imposed by statute. In 1852 an Act was passed throwing on the Council of the Society all the important duties in regard to education, and limiting the title of "pharmaceutical chemist" to certain persons who should pass the examination.

In 1868 an Act was passed by which certain further powers were entrusted to the Society, some of which were of a penal character, and which for the first time practically made it impossible for anyone to be registered in future as a chemist and druggist or pharmaceutical chemist without having passed through certain examinations and gone through a certain course of study. In 1868, when the Act was passed, the condition of the school had to be considered in various ways. They were confronted by the difficulty of a short-time system. A certain number of men wanted to pass the Minor examination—he did not think they wished to do any more—and in a weak moment the Council assented to a proportion of the staff to have short sessions. That experiment, however, was given up not long ago, and coincidentally certain improvements in the school had been made, which he thought rendered it probably the best equipped School of Chemistry and Pharmacy in the kingdom. In the first place, they had added a practical pharmacy laboratory; they had also added practical work in the teaching of botany, by the use of the microscope; this had also been done in the teaching of *materia medica*. Lastly, they had

established a research laboratory, about which he need say no more than that as a place for the continued education of students there could be no better. The object of starting the laboratory was to encourage advanced education, and he maintained that they now had in that house a complete system of education which fulfilled the spirit of the founders of the school. It was now

A PATTERN SCHOOL

for the study of science in its relation to pharmacy. In thus fostering technical education their object was to teach men the principles upon which their work was done, not exactly to perfect them in the mechanical processes thereof. They did not say, did not undertake, that the men whom they trained would pass the examination; what they did aim at was to place them under the most favourable conditions for developing the intellect—to foster intelligent work, not to make machines. (Hear, hear.) He pointed to the

ROLL OF PAST STUDENTS

as a proof of the school's worth. There was Emeritus Professor Bentley, the first prizeman in botany fifty years ago, whom he saw before him. (Applause.) They deplored that he was not there as a live professor, but they were glad to have him an Emeritus one. (Hear, hear.) He was the first of a long line of men who were old students of the school and still officials of the Society. In that connection he mentioned the names of Dr. B. H. Paul, Joseph Ince, Professor Attfield, E. M. Holmes, Professor Dunstan, T. S. Dymond, H. G. Greenish, Mr. Short, Frank Brown, E. H. Harrison, and H. A. D. Jowett, and each name was punctuated with more or less hearty applause. Then followed the names of the departed—*i.e.*, those who have stepped from pharmacy into other professions, which course of conduct the President was prepared to defend. There were Francis Corder Clayton, several times Mayor of Birmingham, and partner in Sturge's Citric-acid Works; Dr. Langdon Down, Bernard Dyer, D.Sc.; William Foster, a professor of chemistry; Dr. W. A. Gostling; David Hooper, the quinologist; Dr. Walter Ince; Dr. A. P. Luff; F. J. M. Page, chemistry teacher at the London Hospital; Professor A. Pedler, of Calcutta, son of Mr. Pedler, the Fleet Street pharmacist, whom many eminent lawyers had regarded as being better than their own doctor; Sydney Plowman; Mr. Pochin, deputy-chairman of several railways; W. A. Shenstone; E. C. C. Stanford; Professor Tilden; John Watts, M.A., D.Sc., and many more. Half of the Council was made up of old students, and the school was particularly strong in auditors—Frank Lescher, Charles Umney, and Francis Yates were auditors, and old Square men. Then examiners, past officers, local secretaries, divisional secretaries, young pharmacists unofficially connected, all yielded names to the roll of fame, and that showed that the school not only taught men to use their brains, but that when they left it they devoted their talents to the service of pharmacy. But he

KEPT THE BEST TO THE LAST.

Men had done their share for the school, and so had women. In his own student days the first one came and stayed for two sessions; that was Miss Garrett—(applause)—who became Dr. Garrett-Anderson, and whose example had been followed by other ladies who had entered the medical profession. In later days they had Miss Boole, who was distinguishing herself in research, and Miss Margaret Buchanan, who nearly got the Pereira medal, and took the Council silver medal. (Applause.) The President then proceeded to discuss the relative merits of

PRIVATE AND SCHOOL STUDY.

He considered that private study was not a desirable form of education for the chemist's apprentice, because it did not widen his mind, and tended to send him out a learned pig rather than an educated man, whereas the school taught him temper, tact, and human nature. There he was taught to work systematically, and to take a reasonable amount of leisure. . . . So far the address might be divided into two parts—a brilliant and interesting opening, and a long and very thin tail. For the sake of diversion, the speaker now told his audience how he had gone once to the theatre when he was a student, and after that he spoke of some of the

DEFECTS OF THE EXAMINATION SYSTEM.

There were a few things which he would like to see reformed. First, the Preliminary examination is now unfit for the purpose for which it was devised. It is an examination of forty years ago, which does not represent present-day education. Its defects are twofold—it is not wide enough, and the examiners have not the power to insist upon it being a test of schoolboy knowledge, because they have not the power to fix an age at which it should be passed. He deplored the defects of the apprentice system, under which men take apprentices who have not passed the examination, such as it is, and who, consequently, have not the opportunities of acquiring that technical knowledge which is necessary for the business and required by the examiners. It is on that account mainly that students wish to get through their examination in as short a time as possible, and the custom has arisen of throwing away examination-fees every three months with the object of tiring out the examiners. Another defect of the examinations is that they are partly oral. This gives rise to the feeling on the part of candidates that the examiners are adverse to their interests—that they are bent upon plucking as many as they can. (Laughter.) He maintained that it was not so; and as one with exceptionally long experience as an examiner he said that the view which an examiner should take, and which the Board did take, was to regard the candidate as one who ought to pass. (Hear, hear.) As to the reforms which he would like to see, he said he would abolish the Preliminary examination altogether, and should accept a recognised minimum of education as shown in an examination passed before the maximum age of 17. (Hear, hear.) It was a vicious system which accepted proofs of preliminary education at the ages of 21, 23, or 24. (Hear, hear.) Next, about two years after the pupil had entered his apprenticeship he would like to see an intermediate written examination, which would count when the candidate came up for the Minor. That would have the effect of keeping up the interest in the technical studies. Then he would have students come up to the school for a year and pass the Minor; then to come back for another year—(Oh! oh! and laughter)—and get a further knowledge of physics, practical physics, and organic chemistry, and go in for the Major. That was what he regarded as the typical form of education for the pharmaceutical chemist of the future. Men educated on these liberal lines would be fit to associate with medical men; they would never be interfered with for prescribing—the best-educated pharmacists never did that sort of thing—and now that botany, chemistry, and materia medica had in a large measure been cut out of the medical curriculum it was their duty to take up the study of these subjects (“Hear, hear,” from Sir Richard Quain.) They might ask him—was this standard of education likely to be reached? He asked them to look around. The merest Board school was taught elementary science now; some of them knew more chemistry than many of their Minor candidates. (Oh!) He maintained that the pharmacist must be well up in all departments. He must not be contented with the minimum of education. He must be competent to know what he is selling, competent to analyse it, and competent to ask sufficient remuneration for it. One of the good signs of the times was that young pharmacists are alive to that view of the matter.

THE WORD DIRECT.

The speaker next wished to make some observations to the students now entering the school. It was usual to put such observations at the beginning of addresses, and to make them pegs upon which the speakers should hang their pet theories. He had talked to them as an old student, and he believed that he had expressed the views of those who were in the front ranks of pharmacy. They did not want to make the pharmacist ashamed of his business. He wanted everyone to say to himself that he had come there to be educated. The man who came there to diddle the examiners deserved not to succeed. (Laughter.) They should set to work as if they liked the business. They should be diligent, loyal to themselves, and behave as men. If students did not, they did not want them to belong to the school. If they were in trouble, or should go wrong, he wanted them to

make a clean breast of it to the Dean, the professors, or the senior students. The fifty-first session was now beginning, and at the end of it he trusted to have a good report of them. To the old students he said that they had now to prove their fitness before another tribunal—the public. They should be true to the dignity of pharmacy. The record of the school showed that dignity fifty years ago, and it did now. There was dignity in all labour. Let their acts be those which in a pure profession would be called professional, and let them ever carry that in mind. (Great applause.)

VOTE OF THANKS.

Mr. ERNEST HART was called upon to move a vote of thanks to Mr. Carteighe. He said the address was one of the most remarkable which he had ever heard. It was an address, an essay, a lecture, an oration. It was critical, ethical, and even sometimes ethnographical. From beginning to end it was touched with hero-worship—one of the most desirable qualities. One of the greatest men had said that one thing that he enjoyed to the utmost was to know how to admire men. What would they, their heroes, say of the school now? They would recognise that it had made a great progress. There were a good many developments in pharmacy since Pereira and Todd Thomson's day, and one of them he thought they would not approve of. That was the development of wholesale specialism, whereby pharmacists became mere agents, and the art of prescribing was reduced to such a low level that the art of dispensing was seriously threatened. So far as the educated pharmacist and the educated doctor encouraged that specialism, he believed that it would tend to retard pharmacy. He could not help thinking that if pharmacists became the mere agents for handing special preparations over the counter they would be less entitled to the remuneration which their education deserved. (Hear, hear.) He thought that by the concerted action of pharmacists and medical men something could be done to stop the evil. The whole thing was a development something like ladies' trains—a development of woman which hindered the progress of man. (Laughter.) He was pleased with the President's remarks regarding examination. Alone it was not a sufficient test of fitness. He thought Sir George Buchanan would agree with him that examination was very much like water-analysis. (Laughter.) Analysis did not always tell them what was in it, nor what was not in it, how it got there, or how long it would stop. By examination they might get to know what was in a man, but they could not tell how long it would stop, or what was not there. (Laughter.) He heartily agreed with the curriculum which Mr. Carteighe had sketched, and hoped it would have legislative sanction. It was a pity that they should have to fix upon the minimum of education. He would rather have it as Socrates had said, “When I see a young man turning to philosophic study I am hopeful of him, but when he turns away from philosophic study and seeks rather the pleasures of life I know that he would have done no good for the world or for himself.” He had pleasure in moving that the thanks of the meeting be given to Mr. Carteighe.

Sir GEORGE BUCHANAN seconded the motion. He said that he was personally gratified that he had had the opportunity of working with the Society, and particularly with the president. Pharmacy and medicine must and would, he considered, work together for the good of mankind. (Applause.)

Sir GEORGE then put the motion, which was carried with acclamation.

Mr. CARTEIGHE, in replying, tendered to Sir George Buchanan the congratulations of the Society on the dignity he had attained. He was sure that University College men were proud of the position which Sir George Buchanan had attained, and of his resolution to devote himself to important questions affecting public welfare.

This closed the proceedings.

FAT PEOPLE who have a wish to become thin should take their baths warm, 95° F., aromatic, and remain in the water for half an hour. A Russian medical man finds that this increases fat assimilation. Rosemary, mint, and lavender amongst the herbs, and ol. pini sylvestris always increase the assimilation.

MAJOR EXAMINATION.

Question set by the Board of Examiners for England and Wales to October candidates, to which are appended model answers.

PHYSICS.

(Time allowed: Three hours.)

Question 1. Give an account of dialysis and its use. Can the process be explained?

Answer. Dialysis has been defined as "the separation of dissolved substances from each other by taking advantage of the different rates at which they pass through moist diaphragms or septa." A classification of soluble substances has been devised based on the greater or less readiness with which they pass through a diaphragm of parchment paper or other similar material. Those which pass through with facility are called "crystalloids" because the majority of the members of this class are capable of assuming the crystalline form. Those which refuse to pass or pass very slowly are called "colloids," a term literally meaning "glue-like" because gelatine is the most perfect example of this class. In order to apply the process of dialysis the liquid containing the substances to be dialysed is placed in a *dialyser*, an apparatus consisting of a hoop of glass or gutta-percha over which a piece of parchment paper is tightly stretched and secured in this position by tying or otherwise. The dialyser is next floated or suspended in a vessel of pure water and the process commences. The crystalloid substances pass through into the water, whilst the colloid bodies remain in the dialyser. As one illustration of the use of the process may be mentioned the preparation of the *Liquor Ferri Dialysatus* of the B.P., in which the colloidal portion is retained. Again, in the analysis of complex organic mixtures the process is often used. Crystalline poisons, for example, are by this means separable from inert and indefinite organic matter. Attempts have been made to explain the phenomenon by supposing that the molecules of a dissolved body have a motion of their own amongst the molecules of the solvent somewhat analogous to that of the molecules of gases. By the further supposition that this molecular motion varies in velocity in the cases of different substances—that it is rapid with highly crystalloid bodies, and becomes more and more sluggish as we advance towards the typical colloids—the process of dialysis receives a, at least, provisional explanation.

Question 2. A beaker containing water at 15° C. with a thermometer in it, is placed in a freezing-mixture at -5° C. Follow the indications of the thermometer and the other physical conditions in the water, up to the time when it reaches the temperature of the freezing-mixture.

Answer. The water in the beaker would at once commence to cool, as would be rendered evident by the steady fall in the thermometer, and this cooling would be accompanied by a diminution in volume. At a temperature exceedingly near 4° C. this contraction would cease and the water would begin to expand, whilst the thermometer would still continue to fall until the temperature of 0° was reached. At this point congelation would probably commence, and the thermometer would remain stationary until this congelation was completed. The water in the act of conversion into ice would undergo a large and sudden increase of volume, not to be confounded with the slow and comparatively insignificant one taking place between 4° and 0° . The water once entirely frozen the thermometer would again begin to fall, and would fall more rapidly than whilst the water was still liquid. The fall would continue till the temperature of the freezing-mixture was attained, the ice at the same time contracting slowly and slightly in volume. It might, however, happen that the temperature fell below 0° without freezing-occurring, especially if the liquid were kept quite free from agitation. A slight stirring of the water, or the dropping in of a minute ice crystal, would at once determine the congelation of the water. The thermometer would in this case rise to 0° and remain there till solidification was complete; the remaining phenomena would then take place as before described.

Question 3. Define specific heat, and give a process by which it may be determined. What is its relation to atomic weight?

Answer. The specific heat of a substance may be defined as the ratio of the heat required to raise the temperature of unit mass of that substance through unit interval of temperature to the heat required to raise unit weight of cold water through the same interval. Of the methods employed in determining the specific heat of substances the following is, perhaps, the most generally useful. A known mass of the body, which we will presume to be a solid, is heated to a known temperature and then plunged into a known mass of water at a different, but also known, temperature, and contained in a *calorimeter*. Time being allowed for a common temperature to be reached, this is carefully taken by a delicate thermometer, and the specific heat may then be easily calculated. For it is evident that the heat lost by the body is equal to that gained by the water, and, again, the heat lost by the body is the product of its mass into its specific heat into its fall in temperature, whilst that gained by the water is equal to its mass multiplied by its specific heat (*i.e.*, by unity) and by its rise in temperature. We thus obtain an equation from which the specific heat of the body is readily obtained. In actual practice it is necessary to take several other data into account—for example, allowance must be made for the heat absorbed by the calorimeter, the stirrer, and the thermometer, as also for that lost by radiation during the experiment. It will be scarcely necessary to add that modifications in the process are rendered necessary when a liquid or a gas is to be experimented upon.

The curious relationship existing between the specific heat and the atomic weights of the elements was discovered by Dulong and Petit, and may be expressed as follows:—"The product of the specific heat of an element into its atomic weight is an approximately constant quantity, the mean value of which is 6.4." At first several elements were considered to exhibit exceptions to this law, but subsequent researches have shown most of these exceptions to be apparent rather than real.

Question 4. Describe the construction, use, and principle of the electrophorus. What is meant by an "influence machine"?

Answer. The electrophorus consists of a cake of resin or gutta-percha resting on a metallic base, called the sole and provided with a metallic cover fitted with an insulating handle. Before using it care should be taken that all its parts are dry and moderately warm. The cake is excited by rubbing or striking it with fur or flannel, and the cover placed upon it. If the insulating handle be now grasped by one hand whilst a finger of the other is placed for an instant upon the upper surface of the cover, on lifting the latter by its handle a spark can be obtained by approximating the finger or other conducting body to the edge of the disc. Replacing the cover upon the cake, again touching with the finger, and removing as before, a second spark may be obtained, and this may be repeated a great number of times. The theory of action is as follows:—The resinous cake becomes charged with negative electricity as a result of the friction with the fur, and when the cover is touched with the finger, and so connected with the earth, an opposite charge is induced in it. Another way of expressing the same thing is to say that the negative electricity of the cake attracts to the under-surface of the disc positive, and repels to the upper surface negative, electricity. This latter is conducted away through the finger whilst the former remains "bound." The energy manifested in the spark has its origin in the excess of the muscular effort required to raise the cover against the attractive power of the cake over that which would be needed were there no electrical excitation. An influence machine is a species of revolving electrophorus in which an electrified body acts by induction upon a revolving system and gives rise to a continuous electrical production. One of the best is that of Wimshurst.

Question 5. Give a short account of (a) the arc lamp and (b) the glow lamp, and trace the transformation of energy exemplified in the production of the electric light by the usual method.

Answer. (a) In the arc lamp electric discharge takes place between two pieces of hard conducting carbon separated from each other by an interval which, by various ingenious devices, is kept as nearly as possible constant. An arc of light of intense brilliance is thus obtained called the voltaic arc. The carbons, being raised to an exceedingly high temperature and exposed to the air, suffer waste by combustion, and hence require renewal. There is also a transference

of particles in the direction of the current, the negative carbon increasing at the expense of the positive one. With the view of obviating inconveniences arising from this cause arrangements are often made for alternating the direction of the current. A globe of ground glass serves to diffuse the light and to lessen its otherwise painful intensity.

(b) In the glow lamp a filament of carbon enclosed in a globe exhausted of air by a mercury pump is interposed in the path of the current. The resistance experienced in passing through this filament is sufficient to raise it to incandescence, and a light is thus obtained more suitable for domestic purposes and the illumination of interiors generally than that afforded by the arc lamp.

The energy manifested in the electric light as usually produced is derived from the heat generated by the combustion of coal or other fuel. This is transformed by means of a steam-engine into mechanical power, and this again into electricity by the dynamo-electric machine. The current is again converted into heat when it meets with resistance in its path, and thus the excessively high temperature of the carbon in the previously-described lamps is produced. The radiation from this heated carbon constitutes what we call the electric light.

Question 6. What is monochromatic light? Show how it may be obtained, and name some of its uses in physical investigations.

Answer. Absolutely homogeneous or monochromatic light would be composed of light-waves all possessing the same wave-length. In practice the name is given to any light which closely approximates to this condition. It differs from compound light in being invariably coloured, which compound light may or not be, and in being unable to be split up into constituent lights of different colours. A ready and convenient method of obtaining a monochromatic light is by burning alcohol impregnated with sodium chloride in a suitable lamp. Monochromatic light is used in determining the rotatory power of optically active bodies, and also in investigating refractive indices.

OPENING OF THE MEDICAL SCHOOLS.

AMONG the addresses at the medical schools one of the most interesting was that delivered at St. Mary's, London, by Dr. A. P. LUFF, B.Sc., whose former connection with pharmacy will be remembered. Dr. Luff had a large and enthusiastic audience, and Sir Edward Sieveking was in the chair. After welcoming the students, Dr. Luff said that though only average mental power and ordinary ability are requisite for passing the medical examinations, and for the after practice of the profession, yet the one thing indispensable is industry. Medicine is a laborious career. There is no place now for the Bob Sawyers; the days of walking the hospitals are over and past; these are the days of study. At the outset students might be surprised, and perhaps alarmed, at the diversity of the subjects with which they have to form some acquaintance, and with the wide range of medical education of the present day. The relationship of some of these subjects to their future work, and their direct or indirect utility in the practice of the profession, may not at first be apparent. But the curriculum has been mapped out with much forethought and care, and though the relationship may not at first be apparent, yet eventually students will surely recognise the mutual connection existing between the various branches of their professional studies. The study of physics, chemistry, and biology prepare the way for and lead up to the study of physiology. Our forefathers adopted an entirely different system of medical training; with them a period of pupillage with a medical man preceded the studies of the medical school, so that the student of those days was first brought face to face with disease before he had learnt the facts and phenomena necessary for the comprehension of it. That was building the house on the sands of empiricism, instead of on the rock of scientific knowledge. The new five years' curriculum should prove a boon. It will enable students to do thoroughly what it was almost impossible to accomplish under the four years' curriculum. With the exception of biology, no new subject is interpolated into this extended

curriculum; but one most important and useful reform has been introduced, and that is that a certificated course of study at a fever hospital is now insisted upon as part of the curriculum. One other reform is sorely needed as a matter of justice and equity to the majority of London medical students, and that is the establishment of a University in London where the degree of Doctor of Medicine will be within the reach of all medical students, and where it can be obtained by a less rigorous series of examinations than the present somewhat exclusive degree of the University of London. Dr. Luff recommended that studies should not be restricted to purely professional subjects and books. "Let your reading be general, and through books cultivate the acquaintance of great minds. Fill up the leisure left by graver occupations with the different forms of lighter and pleasurable occupations, with the perusal of the works of novelists, of poets, and with music. Do not crush beauty and poetry out of life. Allow the imagination and the emotions fair play. You will not be efficiently equipped for the discharge either of your professional or social duties if the acquirement of deep information on medical matters has been obtained at the cost of general culture. And however engrossed you may become in your studies, never lose sight of the necessity of carefulness of your health, and of the need for daily recreation. The first requisite to success in life is a healthy body, and the best brain is of little service unless there be sufficient vital energy to work it. Remember that success in the medical profession depends much on energy, not altogether on information." The lecturer earnestly urged a right moral training, and, after pointing out the growing importance of chemistry as an aid to the medical art, concluded with a bitter attack on the "hysterical antivivisection movement."

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Sir JOHN LUBBOCK opened the session at St. Thomas's. He urged his hearers to arrange their work so as never to waste a moment. A certain amount of amusement was most desirable; regular exercise was absolutely necessary to all ordinary constitutions. But a great many people, for want of a little forethought, lost a great deal of time in what was neither work, exercise, nor amusement. This was the waste of time against which he would caution them. In reading much time was sometimes squandered. He would not urge them to read nothing but learned or professional works. On the contrary, it was important to keep up general reading. Novels were very instructive, and after a hard day's work a little nonsense was very refreshing. But he was often astonished at the want of care with which many persons selected their reading. The fact that they had so little time for reading made it all the more desirable to make the most of what they had, and many of the great standard books of the world could be read even during a very busy life, if time were properly used. He also urged the importance of cultivating habits of business. Sir James Paget had given some interesting statistics, which showed that out of 1,000 medical students whose career he had followed rather more than 200 left the profession or died early; more than 600 attained fair, some of them considerable success. Out of the whole number, only 56 entirely failed. Of these 56, 15 never passed the examinations, 10 failed through ill-health or accident, and 10 through intemperance or dissipation, and about 20 left the profession. In medicine, as in other professions, if a man made himself useful he would certainly be used.

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The address at St. George's was delivered by Dr. BOWLES, of Folkestone. The lecturer commenced by welcoming the new students, and urging them all to preserve the tradition that "a St. George's man is expected at all times and under all circumstances to be a gentleman." The apprenticeship system was announced to be dead—defeated by the rapid march of science. This led to the main subject of the address, "the application of physics to physic." It was pointed out that all changes occurring in physiological and pathological processes, formerly supposed to depend on that unknown quantity, "vital force," were really nothing more than the action of the recognised forces of Nature on the organs and structures of the body. Coughing, sneezing, snoring, &c., were all shown to have immediate origin in

physical conditions. Surgery is the proper application of the laws of physics; injured parts and broken limbs are kept at rest, dislocated parts are placed in their natural positions, redundancies are removed, and natural deficiencies often well supplied; crooked paths are made straight, and blocked and narrowed ones made patent; stiffened joints are made to move, crooked limbs put into shape, eyes are made to see that would not, and ears to hear that could not. Surgery is a department of physics—a physical art. Medicine, formerly the region of the unknown and the happy hunting-ground of quacks, is rapidly following in the same lines. The so-called practical man and the believer in dogmas and nostrums are rapidly giving way to minds trained in the laws of physics. Physiology, medicine's forerunner and its handmaid, is steadily, step by step, and without prejudice, elucidating the ways and doings of animal life. By instruments of the most elaborate and delicate nature, by patient and continuous observation, by anatomical and histological searchings, and by the application of the laws of gravitation, chemistry, heat, light, and electricity, always by ways and means connected with physics, we are getting to understand better and more surely the movements and functions of respiration, of circulation and digestion, of secretion and excretion, and finally we hope to understand the most subtle and mysterious of all functions—the operation of the nervous system. The lecturer then reviewed the rapid progress made in late years in the studies on which the medical art is based. Schroeder in Germany and Pasteur in France, by their investigations on fermentation and putrefaction, and Chauveau on the particular nature of contagia, have opened up an entirely new world. We have now not only to study the causes as well as the changes of the disease in the body, but also the doings of the bacteria outside the body and within it. In view of the more scientific methods of modern pharmacology and therapeutics, students were cautioned against long and complicated prescriptions. Not a single drug ought to enter the body except under clear intention of what object it is to fulfil there. Compounds may be good cookery, but do not form scientific medicine. Finally, students were warned against mistaken views of materialism. The students of the physical and biological sciences are emphatically the servants of Nature. The man of science interprets the physical laws, and equally with the teacher of religion tells us of the greatness and grandeur of the Creator. Every discovery of the scientist can only tend to increase our wonder at the omniscience and perfection of the ways of God.

* *

Dr. MERCIER, who delivered the introductory address at the Westminster Hospital, reviewed the altered relations of the medical profession to the public. The intercourse of doctor and patient had become less oracular and more confidential. The doctor no longer contented himself with administering two tablespoonfuls of physic three times a day, but sought to take the whole mode of life of the patient into his hands, and to modify and regulate it in accordance with the new conditions that the malady required. The old view of disease that was now passing away regarded the patient as a body, some organ of which was deranged in its working. The new view regarded the patient as an acting, thinking, feeling man, whose power of acting, thinking, and feeling was impaired, and needed to be restored. Altered views, too, began to prevail with regard to diseases of the body politic—crime, pauperism, and insanity. Different as these conditions were in superficial features, they exhibited upon close investigation such substantial similarity that they might be regarded as several branches of one stock. The pauper, the criminal, and the lunatic were alike in being stragglers from the great army of civilisation. It has been established beyond cavil by Lombroso and the school of criminal anthropologists that the criminal man is of a different physical organisation from the normal man, and resembles the lunatic in many respects. The same remedial agent—compulsory employment—was found efficacious in each of the three disorders.

* *

At University College the address was delivered by Mr. S. J. HUTCHINSON, the dental surgeon to the hospital. He dwelt largely on the stock grievances of the medical men.

It was, he said, a glaring anomaly that a London medical student who has gone through a five years' curriculum, has passed many severe examinations in medicine, surgery, and midwifery, and whose opportunities for clinical studies are unequalled, should not, after all this, be able to style himself legally by the title "Doctor." The State insists upon the medical student undergoing a five years' curriculum of severe study in all sorts of subjects; it compels him to pass difficult examinations at all periods of his career, and then, when he has done everything and satisfied everybody, and got his degree or diploma, what does the State do for him? Does it protect him in any way against the bone-setter, the herbalist, the medical electrician, the mesmerist, the midwife, or the prescribing chemist, or the legion of American and other foreign gentlemen with a maybe bogus degree? Does it give him one single advantage over these gentlemen beyond allowing him the privilege of suing for his fee in the county court, of being exempt from juries, of being placed on the medical register, of holding certain public offices, and—most glorious privilege of all—of signing the death-certificate, when, "at the last stage of all," he is called in with the forlorn hope of restoring new life to the victim, maybe, of one or other of the practitioners named above? He expressed the opinion that the day is not far distant when it will be impossible for any of the gentry referred to to practise any form of the healing art unless they are entitled to be registered.

THEORETICAL SCIENCE AND ITS APPLICATIONS.

THE Liverpool Pharmaceutical Students' Association have made a step upwards, having on Thursday of last week held the first meeting of the new session in the Botanical Lecture Theatre of the University College, where henceforth they will meet. Mr. Harold Wyatt, jun., President, occupied the chair, and introduced Professor R. J. Harvey Gibson, M.A., who delivered an inaugural address, taking as his subject, "Theoretical Science and its Application." Professor Gibson had a hearty reception. He referred at the outset to the circumstances under which the meeting was held, and held out the hope that "the coalescence of the Pharmaceutical Society and the Botanical Department of University College would result in added usefulness and vigour to both." He spoke of the gradual emancipation of science from its Cinderella-like position, compared with its classical and literary sisters. Speaking of biology, he showed that, while it is the science which deals with the matter and energy of living things, the study of it involves the application of the laws and principles of chemistry and physics, which is true also of other branches of science—even psychology. From this point Professor Gibson dealt with the more general biological principles, this section enabling him to speak of the delicate organism which constitutes man, and how, when that organism or machine is not working properly, repair or a remedy is sought by the use of an antidote. He then came to speak of

THE ORIGIN OF MEDICINES.

It is only natural (he said) that man should come to believe that for every ailment, whether in his own body or in those of the plants or animals in whose welfare he is interested, there should exist some antidote—some cure; and when the great balance that exists between the animal and the plant world became almost unconsciously felt, rather than understood, what more likely than that the latter should be looked upon as the legitimate source of these palliatives? We have nowadays widened our conceptions considerably, and extract our drugs from things the herbalist of the middle ages would have termed unclean. The authors of the oldest herbals, even as late as the sixteenth century—such as Brunfels, Fuchs, Bock, Mattioli, and others—regarded plants mainly as vehicles of medicinal virtues. To them plants were the ingredients in compound medicines, and were therefore by preference termed *simplicia*—simple constituents of *medicamenta*. Hence, too, the specific name "officinalis," applied to so many plants, all of them at one time or another employed in the ancient Pharmacopœia. From such empirical and practical in-

vestigations, indeed, the sub-science of botany originated. Bock, Brunfels, Baulim, L'Obel, and Cesalpinus were the first to extend and classify the catalogues of the herbalists, and from such humble beginnings arose the modern science of botany. Nowadays we are working backwards from the plant to the fundamental *simplicia*. Many and great have been the discoveries that have been made in the course of that research. Think merely of the list of valuable alkaloids that have taken their place in the British Pharmacopœia during the last half-century, almost all of them vegetable in origin. The classic researches of Gomes in 1812, and of Pelletier and Caventon in 1820, to whose exertions we owe quinine, have been followed by equally brilliant investigations by Winckler, Pasteur, Hesse, and many others.

TRAVEL AND MEDICINE.

By the laborious inquiries of travellers we are obtaining a more intimate knowledge of the herbal decoctions employed by savage tribes. Numerous plants which had once a most evil reputation, and were shunned on account of their virulent poisonous properties, have of recent years been made subservient to the wants of man. The umbellifer, a species of strophanthus which yielded the well-known South African arrow-poison, has been found of incalculable benefit in cardiac disease. Urari, another arrow-poison, obtained from *Strychnos toxifera*, a native of the Orinoco and Amazonian forests, probably mixed with the juice of other species, is one of the most valuable of the drugs used in physiological experiment. The celebrated ordeal bean of Old Calabar, *Physostigma venenosum*, a plant so deadly as to be ordered to be destroyed by a thoughtless Government, has yielded, under careful research, a powerful sedative to the spinal cord and valuable agent in ophthalmic cases. Another African ordeal poison was yielded by *Erythrophloeum guineense*, the sassy of the Gambia and casa of the Congo. The bark on infusion yields "red water," the material used in the ordeal. In medicine casa is useful in the treatment of cardiac dropsy and hæmorrhage. One of the most deadly plants of the West Indies, formerly a stock poison of the Obeahs, and probably still in use in Hayti, is *Urechites suberecta*. Now this plant is recognised as a cure for yellow fever. Jamaica dogwood (*Piscidia erythrina*), used by natives as a fish-poison, appears in the United States Pharmacopœia as an anodyne and hyptic. These are only a few of many instances in which plants formerly used destructively against human life have now become subservient to its preservation and resuscitation. Then, again, to glance at

THE COUNTER SIDE OF THE POISON QUESTION.

consider the number of plants from which we may now obtain antidotes to both vegetable and animal poisons. A cucurbitaceous plant of the West Indies (*Ferillea cordifolia*) will expel the poison of the cocoon. The juice of *Ocals corniculata* relieves the intoxication produced by datura-seeds. Even Calabar bean is said to be an antidote to strychnine-poisoning. The machioneel-tree, more deadly than the famous upas, grows side by side with its antidote—white-wood cedar, a species of Tecoma. Not content with extracting and analysing natural *simplicia*, we actually venture to compete with Nature, and enter the lists against her as manufacturers. Indeed, chemists confidently look for the day when all alkaloids will be artificially synthesised, and anticipate the time when medical diagnosis will have only to tell us just what is the matter, and chemistry will straightway answer, "Here is the requisite cure manufactured to suit the case." One point Professor Gibson desired to emphasise—viz., that all progress which will not be mere oscillation must be accomplished, on the one hand, by a union of practice and theory, and, on the other, by a co-operation of the sciences. Theoretical chemistry has become a prophetic science, and every weekly journal announces the successful accomplishment of some prophecy made in the previous week's issue. Biology must not lag behind. Advance in this science must depend on the advances made in other sciences on which it is dependent. Advance depends on the co-operation of other sciences. Pharmacists, as concerned with the manufacture and production of such vegetable and chemical products as are required by the medical man, and he, therefore, gladly welcomed the Association that night. They had thus forged one more link in

the chain which will more and more firmly, as years go by, bind together the *practik* and the *theoretik*.

On the motion of Mr. J. R. Johnston, seconded by Mr. T. H. Wardleworth, a hearty vote of thanks was accorded to Professor Gibson.

A PRODUCE-BUYERS' DEFENCE ASSOCIATION. MEETING AT THE CHAMBER OF COMMERCE.

ABOUT forty gentlemen interested in the produce trade assembled at the offices of the London Chamber of Commerce on Tuesday, at 2 P.M., in answer to a circular from a firm of exporters convening a meeting "to discuss the question of forming an Association of general produce-buyers, for the protection of their interests, and of enforcing redress in all cases where it could be proved there had been loss in weight or any irregularity in the description of goods."

Mr. Harvest, of the firm of D. W. Harvest & Co., took the chair, and made a short statement to the effect that there had lately been a great many instances in which wholesale buyers of produce had had to complain of not getting the proper weight of goods they had bought, and were expected to pay for; hence it would be for the benefit of the wholesale dealers to pull together and form an Association in defence of their interests.

Mr. Ziegele followed. He spoke in the main as a dealer in shellac, but pointed out that the same abuses of which he complained in the trade in that article existed in many others also. Mr. Ziegele adduced several instances of purchases made by his firm in which it was found that the actual weight of the goods received did not correspond with that invoiced. The documents relating to one particularly flagrant case he held in his hand, and pointed to them repeatedly as he unfolded his story. The transaction related to twenty cases of shellac, which he declined to accept on account of ascertained deficiency in weight. "Oh!" said the broker, "don't make a bother about that; the market is going up, and you can sell with a profit as it is"; but Mr. Ziegele did not see things in that light, and submitted the matter to arbitration. The two arbitrators (brokers) appointed under the rules of the London Produce-brokers' Association found that there was under-weight, one case (of a supposed weight of $1\frac{1}{2}$ cwt.) being 90 lbs., and another 40 lbs. short, but they referred the matter to an umpire, who gave his verdict against Mr. Ziegele. The latter then appealed to the Brokers' Association, a committee of which investigated the matter and upheld the umpire's decision. The costs of the arbitration, however, were thrown upon Mr. Ziegele's opponent. The brokers, Mr. Ziegele continued, admitted that the accuracy of weighing left much to be desired in Calcutta; but they maintained that as a rule the aggregate weight of a parcel would tally fairly well, some cases being over, and others under weight. "But that," said the speaker, "is no satisfaction to our customers, among whom we have to distribute our purchases, and who insist upon having the precise weight they are charged."

A wholesale dealer connected with the home trade confirmed Mr. Ziegele's complaints, and stated that, with an experience extending over many years, he could affirm that shellac did not lose weight during storage; hence the excuse that the shortage occurred during the journey from Calcutta, which was sometimes heard, did not hold good.

Mr. Otto Bruckmann related a case which had occurred to him recently, and in which, out of a parcel of ten cases shellac bought by him from a firm of brokers, two cases alone showed a deficiency of 160 lbs. upon the Calcutta weight. He also appealed to arbitration, but was non-suited, the arbitrator, however, expressing the hope that the importers "would see their way to compensate the buyers"—a proposition which these gentlemen politely but firmly declined to entertain.

The succeeding speakers dealt mostly with short weights in spices, and ultimately a resolution that an Association for the protection of produce-buyers be formed was carried *nem. con.*, about half of those present handing in their names as members. One or two gentlemen, however, urged the necessity of caution, suggesting that, in the event of payment according to actual weight being made the rule, the importers might retaliate by abolishing "reth," "draft," and other allowances now existing.

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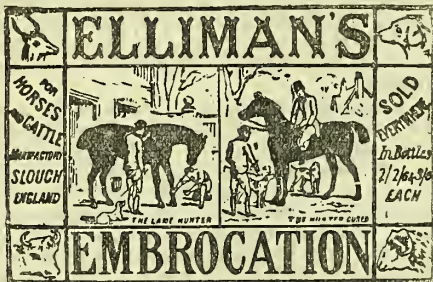
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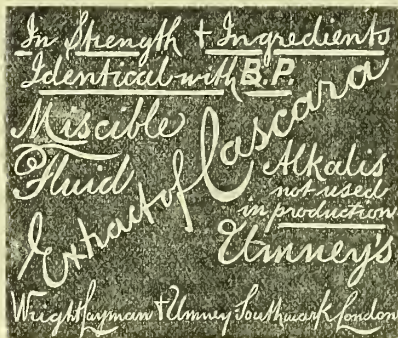


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Editorial Comments.

RESTRICTING THE SALE OF PROPRIETARY MEDICINES CONTAINING POISONS.

SOME correspondence is published in a medical journal between Mr. Ernest Hart, on behalf of the Parliamentary Committee of the British Medical Association, and Mr. Carteighe, President of the Pharmaceutical Society, in reference to the sale of proprietary medicines containing poisons.

I see it stated (writes Mr. Hart on September 13) in certain journals connected with pharmacy, that the Council is thought to be indisposed to take action, though there are persons ready to contest the further application of the decision arrived at, and to defend any charges brought against them under the above-mentioned section of the Act. It will be important for my committee to be informed of the present position of the case, as they would desire to make the salutary results of the late decision, and of the action thereupon by the Pharmaceutical Society, as far-reaching as possible, and so extended in area as effectually to protect the public against the evils involved by disregard of the law.

To this Mr. Carteighe replied on September 26. He informed Mr. Hart that in July last the Pharmaceutical Council authorised legal proceedings to be taken for the sale of chlorodyne against several of the largest retail dealers of proprietary medicines in the metropolis, one of whom has a number of branch establishments throughout the country. These all (he adds) paid the penalties claimed without going into court, and undertook not to sell proprietary preparations containing poison in future.

This accounts, he suggests, for the circumstance that little publicity has been given to the action of the Pharmaceutical Council in this direction. Mr. Hart appears to be perfectly satisfied. Elsewhere he writes: "We are enabled to state that there is no foundation whatever for the suggestion that the Council of the Society is in any degree indisposed to enter upon the task of enforcing the provisions of the Pharmacy Act, in accordance with the decision in the chlorodyne case, as expressly urged by the Treasury and by the British Medical Association. That suggestion in a trade journal was perhaps based upon nothing more substantial than the non-appearance of cases of prosecution by the Council." He adds further on his assurance that "the statement which has been made that there are defendants ready to dispute the decision in the chlorodyne case and contest the action of the Council of the Pharmaceutical Society is obviously erroneous."

We do not perceive the purpose of this sneering allusion to THE CHEMIST AND DRUGGIST, which is "the trade journal" referred to. It is made to appear that this journal is seeking to hinder the beneficent labours of Mr. Hart and of the Council of the Pharmaceutical Society towards the enforcement of the poisonous regulations in the Pharmacy Act. The truth happens to be entirely the other way. We have persistently, and often apparently to the offence of a considerable section of the trade, urged on chemists the strict observance, and on the legally constituted authorities the rigid enforcement of the requirements of the law as regards the sale of poisons. We have advocated this when it has pleased some of the gentlemen in authority to allude contemptuously to "that wretched Poisons Act." We have helped largely to create the opinion in the trade which has made the Pharmacy Act really effective in the past few years, and with that policy in view we heartily welcomed Mr. Hart's interposition in regard to poisonous proprietary medicines a few months since; but, having some claims of our own to look after, we are not disposed to give him the exclusive credit which he seems determined to insist upon.

It is, no doubt, the fact that many unregistered persons have been threatened and have paid penalties for selling proprietary medicines containing poisons. Our report of the proceedings of the Pharmaceutical Council on Wednesday shows that over 100% has been paid into the Bloomsbury exchequer as the result of such proceedings in July, "and there is much more to come," said the President. That is well. At the same time it is not—or, at any rate, was not—"obviously erroneous" to state that there were defendants ready to contest the action of the Pharmaceutical Council in

this matter. The assertion was based on a letter which we published, authorised by the Association of Owners of Proprietary Medicines. The firms represented in that Association are very well known. They are not men of straw, and, so far as we know, they are not given to "bounce." If they meant what they said it would be easy for the Pharmaceutical Council to arrange an action for the decision of the High Court which should establish finally the interpretation of the Pharmacy Act as it relates to this question. The advantages of obtaining such a decision now that public and medical opinion seems to demand it are considerable; the disadvantage of letting the opportune time slip by seems equally evident. For a time, perhaps, a larger harvest of penalties can be raked in by the guerilla warfare at present adopted; but for the sake of the public, as well as for the interests of the trade at large, a pitched battle, if it can be secured, is both fairer and would be more effectual. We claim to have brought about such a result in the unqualified-seller matter, and it does not need demonstrating that the judgment of Mr. Justice Hawkins on that point was one of the most valuable gifts the Pharmaceutical Society has ever received. We are not so sure as Mr. Hart seems to be that the best means are being taken for the accomplishment of the object which he and we, from different standpoints, have in view.

THE POSITION OF IPECACUANHA.

AT last week's drug-auctions ipecacuanha-root, as imported—i.e., intermixed with a certain proportion of wood, dust, &c.—realised 9s. per lb. That is the highest price obtained at the London auctions for Brazilian root in this condition for very many years, though it has been surpassed more than once within the recollection of even the present generation of druggists. In July, 1866, for instance (as a reference to a number of THE CHEMIST AND DRUGGIST of that date shows), good ipecacuanha fetched 14s. per lb. at the London drug-sales.

A noteworthy coincidence in connection with the present rise in the market, however, is that our imports of ipecacuanha this year have been much larger than in any previous season. Until 1889 the arrivals rarely reached more than 700 bales a year, but in that year they amounted to 1,101 bales, in 1890 to 1,349, and in 1891 to 1,297 bales. During the first eight months of the present year we have already imported 1,041 packages, so that 1892 bids fair to beat the record, unless, indeed, the hint recently thrown out by one or two importers that there will be no further arrivals for the next three months should prove correct. At the same time the consumption of the drug has grown in almost the same proportion as the supply, and this is undoubtedly a very important factor in the situation. The influenza and cholera epidemics account to a large extent for the growing use of ipecacuanha as a medicinal agent; but, apart from these abnormal factors, there is a noticeable tendency to resort to ipecacuanha preparations much more largely than in former years. It may be remembered that in the early part of 1886 we asked our subscribers to name the drugs most frequently mentioned in prescriptions dispensed by them. We tabulated over 10,000 out of a total of some 13,000 prescriptions dissected by our readers in reply to our question. Ipecacuanha-wine (not to mention other preparations of the drug) was named in 696 of these, and proved to be the third in point of popularity among the remedies prescribed by medical men in this country. That was before the influenza was heard of, and it is not at all improbable that a similar plebiscite, if carried out at this moment, would show ipecacuanha to be

absolutely the most frequently prescribed drug. And if the large quantities of the root known to be purchased for export to the Continent and the United States at our drug-ansions are taken into account, it is not too much to assume that the employment of ipecacuanha has progressed abroad as much as it has at home. There does not seem to be any reason why that movement should not continue in the same direction, and unless, therefore, the supply of ipecacuanha also keeps on increasing, it seems likely that the price will, at any rate, not sink below the average of the last three years, or, say, about 7s 6d. per lb. for fair natural root.

It is, unfortunately, almost impossible to estimate what our future supplies are likely to be. The import trade in the drug is in the hands of three or four firms, and they are not likely to disclose whatever special information they may possess on this point, though most probably they know very little more than anyone else who has taken the trouble to follow the course of the market for a number of years. Until a few years ago the formation of an estimate of the position was simplified by the fact that Brazil was the only country of production worth considering. That is no longer so now. In May, 1883, a small consignment of ipecacuanha cultivated in the native State of Johore, in the East Indies, reached our market, and, though unimportant from the point of view of the hand-to-mouth buyer, it was large enough to demonstrate that the drug can be successfully grown in Asia. In the three following years there were further small shipments from the same source, and although, up to the present, no genuine East Indian root has been offered at our auctions this year, the official reports of the managers of the Botanical Gardens in the Straits Settlements and Southern India point to the probability that before long our Eastern possessions will take a not unimportant share in the production of the drug. So much for the East. The South American Republic of Colombia, too, has this year taken firm foot in our market with constant supplies of the so-called "Carthagena" root, and so long as there is no serious falling-off in the price of the drug, these consignments will, undoubtedly, increase. Carthagena ipecacuanha, which was formerly only seen sporadically in the market, has been offered regularly at almost every drug-auction since October of last year—on one occasion to the extent of 42 packages at a single sale—and as its average value is only from 15 to 20 per cent. less than that of Rio root, it may be assumed to leave a handsome profit to the exporters, and it is very probable that we shall receive several hundred packages of it in the course of next season. A railway-line has recently been opened in South America, tapping that department of Colombia where the so-called Carthagena root is produced, and the increased facility for export afforded by the construction of this line is probably one of the principal causes of the increase of our supplies of this variety of the drug. This theory is supported by the fact that nearly all the recent arrivals have come to us *via* Panamá instead of by way of Carthagena or Savanilla, as formerly, for the terminus of the new railway is the port of Buenaventura, on the Pacific Ocean, and from there the shortest way to Europe lies over the Isthmus of Panamá. It is notorious that in the case of products from the interior of South America facility of transport is almost the principal factor in successful competition. It is certain that there is plenty of ipecacuanha growing wild in Brazil and Colombia to keep us supplied for years and years. The main difficulties have always been the want of cheap and expeditious carriage and of labour, and whenever these difficulties are removed we may be sure that supplies will increase much faster than we can absorb them. Dr. Rusby, the American pharmacognosist, who travelled throughout

South America in 1886, states that in Brazil the ipecacuanha shrub has been practically exterminated in all the easily accessible localities, and that our supplies are now derived mainly from the States in the far interior of the country. In these districts, at the time of his visit, labour was so scarce that employers willingly offered a premium of 60% for every man that could be procured, the work-giver taking his chance of retaining the labourer's services. The only product at that time which could bear this high price of labour was iudiarubber, and every available man was therefore employed in the collection of that material. It was only when the value of ipecacuanha on the European markets rose to 7s. per lb., or thereabouts, that the collection of that drug again became profitable, and at the time of Dr. Rusby's visit the London value was only from 3s. to 3s. 6d. per lb. We do not know whether labour has since become more plentiful in Brazil, but communication, both by rail and river, has undoubtedly become easier, and the frequency with which large consignments of ipecacuanha have followed each other this year, together with the exceptionally high prices realised, seem to indicate that the time is not far off when the increased demand will be more than overtaken by the growth in the production.

COMMENTARY.

AN AMERICAN DEFENCE.—Professor Chas. O. Curtman, of St. Louis, Mo., has replied through the *Pharmaceutical Record* to the comments made in this journal on August 13 upon the paper on amyl nitrite which he had read before the American Pharmaceutical Association. As that paper met with the special appreciation and thanks of the Association, we thought it right to point out that the author had traversed ground which had already been efficiently explored by English workers—Allen, Williams, Dunstan and his colleagues—and that sufficient reference was not made to their work. Professor Curtman's reply is lengthy, but the following paragraph contains the essential facts:—

The main aim and object of my paper (he writes) was to report, in answer to query No. 15 of the question-sheet published by the committee, the result of an extended examination of the quality of amyl nitrite found in our markets. Based upon this examination are certain recommendations for the introduction of a uniform standard of strength and cautions for keeping the product from decomposition; all of which is evidently no "venerable chestnut," as the reviewer styles it, but information recently obtained by means of considerable labour in analysing numerous specimens collected from various portions of the United States. To give an intelligible account of the methods employed to reach my results, I had to give not only a short description of amyl nitrite and its properties, but also of the special mode of analysis used. As this was Mr. Allen's method, I briefly described his apparatus and the manner of using it, but so far from showing discourtesy to him, I not only distinctly stated on page 3: "For the examination of a number of specimens . . . I have adopted the method devised by Allen . . .," but also on page 4 gave an illustration of his apparatus, distinctly marked "No. 3, Allen's nitrometer."

Due acknowledgment of these facts was given in our report (August 6) of the Association meeting, but Professor Curtman referred to the nitrometer as having been used by Allen for estimating spirit of nitrous ether, which fact, we presume, accounts for the ellipsis in the above quotation. Professor Curtman disclaims any want of courtesy to Mr. Allen, whose paper on amyl nitrite he has only seen short extracts of, and in his defence he does not mention at all the other work referred to in our criticism. The inference is that we hit the mark pretty exactly.

THE AMERICAN VIEW.—It is thus that the *Western Druggist* replies to our comments, taking the British Pharmaceutical Conference as its text:—"Our British brethren seldom essay to contribute anything of practical value to retail pharmacists. This is especially the case in their reports upon galenicals, which reveal a degree of ignorance of which a tyro in America would be incapable. Messrs. Farr and Wright, for instance, reported separately two years ago upon menstrea for tinctures, and now make the astounding revelation that 'aqueous [spirituous, rather] preparations of cinchona do not represent the full alkaloidal value of the bark, but that 70 per cent. alcohol and macero-percolation give the best results'! The learned gentlemen should have consulted the U.S.P. for a correct menstruum for tincture of cinchona, as did Mr. Hodgkin in the case of purified animal charcoal, only to discover that the B.P. process was decidedly inferior to that of the U.S.P. Mr. Davis should also have consulted American literature with reference to 'Ung. Hyd. Nit. Oxyd.' and discovered the real objection to the use of a mixture of paraffin and paraffin oil as a 'basis' (vehicle) for ointments. In fact, our British brethren may well consult American literature when they desire to take up pharmacy. They have a few learned chemists who read lengthy papers 'on our defunct alkali industry,' &c., but when it comes to simple, practical pharmacy, they are—to use a popular but very un-British and consequently thoroughly vile Americanism—"not in it."

EMETINE ESTIMATION.—Messrs. Caesar and Loretz publish the result of a series of examinations, made with the object of ascertaining the proportion of emetine in various parcels of ipecacuanha imported by them from London. The test of nine samples was as follows:—No. 1, Rio root, best natural commercial quality, 1.45 per cent.; No. 2, good ditto, 1.05 per cent.; No. 3, Rio root, of characteristic but somewhat thin appearance, offered at the drug-auctions as "picked" root, 0.65 per cent.; No. 4, Rio root, ordinary lean quality, 0.53 per cent.; No. 5, Carthagen root, fine picked plump quality, 1.85 per cent.; No. 6, best natural commercial Carthagen root, 1.4 per cent.; No. 7, ordinary lean and woody Carthagen root, 0.9 per cent.; No. 8, Singapore root (imported in December, 1891), 0.54 per cent.; No. 9, the woody heart portion of Carthagen root, 0.23 per cent. The analyses were made by Kremel's test, which the investigators think far superior to Flückiger's. But even by Kremel's test no perfectly pure emetine is obtained; in fact, sample No. 5, which, by Kremel, gave 1.85 per cent. of emetine, yielded only 1 per cent. of emetine when tested according to Podwysotszki's method. The low average percentage obtained by Messrs. Caesar and Loretz is remarkable.

IODIDE OF STRONTIUM.—French physicians are recommending iodide of strontium for the treatment of heart-affections in the place of iodide of potassium, because it is tolerated by the system longer and its action appears to be more specific. The only trouble is the difficulty of preparing it. Dr. A. Malbie states in "Nouveaux Remèdes," that the following are the most suitable methods:—(1) Saturate hydriodic acid with strontium hydroxide; (2) decompose a solution of strontium sulphide by agitating with iodine, sulphur is precipitated and strontium iodide remains in solution; or (3) first make ferrous iodide by adding an excess of iron filings to a mixture of iodine and water, then decompose the ferrous iodide with strontium hydroxide or strontium sulphide. Filter the solution in an atmosphere deprived of oxygen, press the iron precipitate, and evaporate the filtrate to the point of crystallisation. The iodide is obtained in hexagonal crystals. It contains 6 molecules of water of

crystallisation, is soluble in less than its own weight of water, and decomposes very readily in the air absorbing oxygen, giving off iodine strontium, oxide remaining. It can be dehydrated by fusion in a stream of nitrogen. The salt may be given in the same doses as iodide of potassium, the physiological actions of both being closely allied.

Legal Reports.

MORE VETERINARY COLLEGE PROSECUTIONS.

JAMES COLEMAN, of Dublin, has been fined 2s., and 2l. costs, for describing his establishment as a "Royal Veterinary Forge."

Counsel for the defence urged that no offence against the Act had been committed, but the magistrates convicted. They moderated the fine on the ground that the decided case (*R.C.V.S. v. Robinson*) was only reported last month in Ireland.

Robert Watts, of Llangollen, unqualified, had on his door-plate, "Robert Watts, veterinary surgeon." Fined 1l., and 1l. 1s. costs.

James Kirkman, of Accrington, was summoned at the Accrington Police Court on September 23. The representative of the College pointed out that the defendant had given a receipt containing the words "veterinary establishment." He had also given a card containing the words "James Kirkman, son of the late James Kirkman, veterinary surgeon." It was contended that the card was calculated to lead people to believe that he was a qualified veterinary surgeon, which was not correct. Mr. Sandeman apologised on behalf of the defendant, and the case was withdrawn on the defendant promising to pay costs.

THE MEDICINE-STAMP ACT—EXCISE PROSECUTION.

At the Stratford Petty Sessions on Saturday, October 1, James James, chemist, of Woodford, was summoned for exposing for sale and selling a bottle of mixture and a packet of powder, under the title of "James's Mixture," without having the medicine-stamp attached. The offence was admitted.

Mr. R. Tozer, Supervisor of Excise, who conducted the prosecution, said he sent for a bottle of mixture and a packet of powder, and found the duty-stamps were not attached.

The Bench imposed a fine of 2l., and 10s. costs. The money was paid.

SALT IN BEER.

TWENTY innkeepers were summoned before the Merthyr magistrates on Saturday, at the instance of the Glamorgan-shire County Council, for selling beer which contained more than 50 grains of chloride of sodium to the gallon. Mr. Abel Thomas, M.P., prosecuted, and Mr. John Plews, barrister, defended.

The case of William P. Shoot, of the Cardiff Arms Inn, Merthyr, was first taken.

Mr. Thomas said the proceedings were instituted under section 6 of the Food and Drugs Act, 1875, which declared that no person should sell, to the prejudice of the purchaser, any article of food or any drug which was not of the nature, substance, and quality of the article demanded. On July 29 Superintendent Thorne purchased three pints of beer from the defendant. One bottle was sent to Dr. William Morgan, the county analyst, who found that it contained 45½ grains of chlorine to the gallon, which was equal to 75 grains of common salt. Defendant said that he obtained the beer from the Taff Vale Brewery, who, at the request of the police, furnished a gallon of their water for analysis. Dr. Morgan submitted this to the usual tests, and ascertained that it contained 1½ grain of chlorine. The hops and malt might yield from 6 to 8 grains per gallon, so that the highest amount of chloride of sodium reached should not have amounted to more than 10 grains per gallon, instead of 75.

In cross-examination, Dr. Morgan said the quantity of beer at his disposal was not sufficient to admit of a complete analysis. Moreover, it was not necessary to do more than ascertain the amount of chlorure. Asked whether, if the Somerset House authorities could make a distinction in the chlorides in a certain quantity of beer, there was any reason why he should not do so, Dr. Morgan said there were instances in which he very much questioned the accuracy even of the Somerset House authorities. He ventured to think that he knew his work quite as well as they did.

Mr. Plews: You said that anything over 50 grains of salt would be adulteration.

Witness: I say that 50 grains is an ample margin, and that anything beyond that is certainly excessive.

That is your individual opinion?—That is my individual opinion, and one based upon experience for the last eighteen years in this county. It is not my opinion only, but my experience and reading.

Do you know, as a fact, if any other county analysts have taken that standard?—Yes, I believe it is accepted by every analyst under the Food and Drugs Act. I do not know of any exception. There were exceptional cases in which water contained in itself 50 grains of chlorides, but such water would not be recommended by anyone for brewing. He had no practical knowledge of brewing, but he knew that it was quite unnecessary to use even 50 grains for brewing a good commercial beer.

Dr. Thomas Stevenson, the senior scientific adviser of the Home Office, supported Dr. Morgan's views, while for the defence, Dr. E. W. Moritz, consulting chemist to the Country Brewers' Society, and author of a work on scientific brewing, said he had made a complete analysis of the beer. He knew of no such standard limit as 50 grains to 1 gallon. He agreed with Dr. Morgan's estimate of the quantity of chlorides, and found that the salt present was 63 grains to the gallon. Professor Atfield had found a similar result. He said beer containing 63 grains of sodium chloride would quench thirst, not provoke it. A man would eat at his dinner from 50 to 100 grains of salt, and in a day a quantity ranging from 200 to 300 grains. Before the chlorides in this beer could affect a man he would be drunk; in fact, he did not know that a man could drink enough beer to be affected by the chlorides.

Dr. Arthur Pearson Luff, of St. Mary's Hospital, London, said that in his opinion any quantity of chlorides in 1 gallon of beer up to 125 grains would not be prejudicial to the consumer. With respect to what Dr. Morgan had said as to a glass of beer containing chlorides in the proportion of 75 grains to the gallon creating thirst, he considered it absolutely impossible, and such an answer could only have been given by one entirely unacquainted with the elements of physiology.

Dr. Charles T. Vachell, of Cardiff, also gave evidence for the defence.

In the end the Stipendiary said the magistrates had come to the conclusion that the beer was of the nature, substance, and quality demanded by the purchaser, and, therefore, they dismissed the summons.

LINCOLNSHIRE SHOPKEEPERS AND THEIR TINCTURE OF RHUBARB.

At the Boston Police Court, on September 28, Edith Martin, shopkeeper, of Sutterton, was charged with having, on August 31, sold tincture of rhubarb containing (according to the report of Mr. Southwell, public analyst) not more than 50 per cent. of the quantity of saffron ordered in the official formula. Defendant said she sold the tincture just as she found it in the shop. Her father had the business previous to her taking it. Superintendent Crawford said he believed that statement. He was served in a very courteous manner. He did not know whether the house had been opened by her or not. The Chairman said he had no doubt the ingredients had been left out by the manufacturer. Withdrawn on payment of costs.

Thirza White, shopkeeper, Sutterton, was charged with a similar offence. In this case (according to the report of the public analyst) not more than 25 per cent. of the amount of saffron ordered in the official preparation had been used, and turmeric had been added, which is not an ingredient of the official preparation. Defendant admitted the offence,

stating it was as she purchased it. Withdrawn on payment of costs.

At Spalding Petty Sessions, on Tuesday, Richard Crosby, grocer and draper, Fleet, was charged with selling 4 oz. of tincture of rhubarb which was not of the quality demanded by the purchaser. Defendant admitted the charge. Superintendent Jarvis proved the purchase and the report of the public analyst (Mr. C. H. Southwell, F.R.M.S., Ph.C.) was put in, stating that the sample was a compound instead of the genuine article. Mr. Crosby was questioned as to where he obtained the article, and he replied that it was purchased from Mr. Robert Donington, chemist, Spalding. In the course of further conversation, however, it transpired that there had recently been some little alteration in the law, in consequence of which Mr. Donington asked the defendant to send back the supply he had then in order that he might be furnished with a fresh lot. This he did, but, through some mistake, the tincture of rhubarb received was returned again. A fine of 5*l.* and costs was imposed.

H. V. Fletcher, grocer, Gedney, was charged with a like offence. The tincture was similar to the previous sample. Mr. Fletcher said he obtained his tincture of rhubarb from Messrs. Shadford & Co., chemists, of Spalding. He was asked to return his old supply, but did not do so, and continued selling from the bottle. In reply to the Bench, Superintendent Jarvis said he had obtained samples from the chemists for analysis, and they had always been found to be correct. The Bench imposed a fine of 10*l.* and the costs.

GLASGOW PILL-MANUFACTURER'S CLAIM FOR COMPENSATION.

In the Glasgow Sheriff Court, on October 1, a petition was presented to Sheriff Spens by Andrew Malloch Robertson, surgeon and chemist and druggist, 27 Main Street, Anderston, Glasgow, asking his Lordship to determine the amount of compensation which the Caledonian Railway Company should pay him for disturbance to his business. The petitioner stated that he occupies a large corner shop, with a room behind and three rooms below, on the south side of Main Street, Anderston. In these premises he carried on business as a wholesale and retail druggist and manufacturer of sugar-coated pills for the wholesale trade, besides having a medical practice there. For some time past operations in connection with the new Central Railway (an underground line running below the principal thoroughfares), of which the Caledonian Railway Company are the promoters, have been going on throughout the city, and, in connection therewith, they erected close to his door a huge pile-driving machine with engines and machinery, and laid down plant. In the course of the pile-driving operations carried on there continuously from July, 1891, to July, 1892, large quantities of smoke, dust, and dirt were thrown up and became mixed with the drugs and other articles in the shop, and rendered them worthless. The value of the drugs, pills, and herbs so affected he estimated at 50*l.* He had found it impossible during the operations to manufacture sugar-coated pills, because of the smoke, &c., and he had to suspend the manufacture of them for eleven months, thereby losing 110*l.* of profit. Ultimately, in July last, he obtained new premises for the manufacture of his pills, and he charges a further sum of 15*l.* for that in name of rent. Owing to the barricades he lost business, and claims 100*l.* for that. Altogether Dr. Robertson claims 340*l.*

The defence is a general denial of pursuer's statements. The defenders further aver that the Corporation gas and water people had workings at this point, and that they were for the most part to blame for any loss which the pursuer has suffered.

Evidence in the case was led before the Sheriff on Saturday.

Dr. Robertson in the course of examination stated, and produced his books in support of his statements, that for the year 1888 his profits from the manufacture of sugar-coated pills were 55*l.*; for the year 1889 they were 115*l.*; for 1890, the year immediately prior to the commencement of the railway operations, they amounted to 192*l.*; while for the year during which the operations went on they only amounted to 18*l.* The shop drawings, apart entirely from the manufacture of the sugar-coated pills, the books showed

were—in 1889, 861*l.* 10*s.*; in 1890, 790*l.* 16*s.*; and in 1891–92 (the year of the dust) they only came to 640*l.*

Several other witnesses having been examined, the Sheriff took the case to *avizandum*.

PROSECUTION UNDER THE PHARMACY ACT.

At the Birmingham County Court on Thursday, the Pharmaceutical Society brought an action against Alice Ada Young, Potter's Hill, Aston, to recover three penalties of 5*l.* each for selling poisons without being duly registered as a chemist and druggist. A penalty of 5*l.* was agreed to in regard to one of the poisons. It was stated that two of the articles supplied, oxalic acid and belladonna, were not genuine, and the cases in regard to these were adjourned.

Pharmaceutical Society of Ireland.

ON Monday, October 3, the seventeenth annual meeting of this Society was held in the Society's House, 67 Lower Mount Street, Dublin, at 7.30 P.M. Mr. William Hayes (President) was in the chair.

The minutes of the last annual meeting were read by the Registrar (Mr. Arthur Ferrall) and confirmed.

On the motion of the PRESIDENT the following gentlemen were appointed scrutineers of the ballot for the election of seven members of Council, all of whom offered themselves for re-election: Mr. John Evans and Mr. Downes, pharmaceutical chemists; and Mr. Maxwell and Mr. Hart, associate druggists.

MR. MCWALTER'S NOMINATION.

Mr. O'DONNELL asked why a nomination paper putting forward Mr. McWalter as a candidate for one of the vacancies had not been received.

The PRESIDENT said because it was found that Mr. McWalter's seconder had not paid his subscription for the current year, and under the rules was consequently incapacitated from either acting or voting as a member.

Mr. O'DONNELL said he would move that the nomination of Mr. McWalter was in order.

The PRESIDENT: I cannot receive that resolution.

Mr. O'DONNELL said the matter appeared to him to be a personal one.

The PRESIDENT: I must ask Mr. O'Donnell to withdraw that. I am sure the meeting will understand that I would not allow anything personal to be mixed up in the matter. (Prolonged applause.) I would not under any circumstances have rejected a candidate who was entitled to be put forward.

In reply to a question, the PRESIDENT said the seconder paid his subscription after the nomination-paper was sent in.

Mr. MCWALTER contended that the nomination-paper should have been received.

Mr. HODGSON rose to order. The President had made his ruling, and there should be an end of the matter.

THE PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his address. He said:—My regret at not being at my post of duty last year to bid you welcome to our new home, is very much minimised when I remember how admirably Mr. Wells—the then Vice-President—did his own and my parts in not only giving you a hearty *cord mille faillite*, but treating you also to a most exhaustive and exceptionally interesting history of the year's working and the sixteen years' struggling. Though not in my place as President here, I was in another very distinct path of duty this time last year. I visited a region perhaps the most wonderful on the face of this globe—the hot spring country of New Zealand, with its innumerable geysers, diversified hot mineral lakes, and white and pink terraces—a place like an ideal paradise, until that dreadful night, when, through the eruption of Mount Tarawara, it underwent a transformation, and was burned beneath ashes, mud, and dust, to a depth of 30 feet near the terraces, and several inches hundreds of miles away.

It is with sincere regret we have to note the blanks in our midst. The name of Henry Napier Draper cannot be mentioned without feelings of reverence and respect for his memory and of pride for being able to think of him as a friend who was uniformly gentlemanly in his manner and kind and courteous towards every one. A chemist of high attainments, he was an ornament to our Society and Council, of which he was Vice-President for many years. Many of you will also remember him as the first examiner of the Society in chemistry. Alexander Elliott Doran has also passed from our midst, and leaves a vacant seat on our Council. Attacked early last year by influenza, his constitution was gradually undermined, and, though his friends hoped that he would have rallied with his change to the South of France, it was evident from the time of his return that he was too far gone for permanent cure. He was a man of the highest rectitude, with more than ordinary business qualifications. A kind and loving husband, a good and generous father, a sincere and faithful friend, and a devout and constant Christian. I do not speak without knowledge, for we were friends of over thirty-five years' standing. We have lost on the Council a useful and respected member whose place cannot be easily filled.

The President next alluded to the Trinity College Tercentenary celebrations in July.

Our licentiates, he said, are privileged to act as pharmaceutical chemists in most of the Australasian Colonies, Victoria, New Zealand, and, if also members, in New South Wales, in many of the Canadian provinces, and in about half the States of America. Within the last few weeks we have got a similar concession from the Pharmaceutical Society of Cape Colony. Whilst in Melbourne, the Victorian Board of Pharmacy kindly entertained me at a dinner—not, of course, as William Hayes, but as the President of the Pharmaceutical Society of Ireland. A nicer, pleasanter, and better educated set of gentlemen I have not met anywhere. I had the pleasure of being shown over the city of Sydney by one of our licentiates, Mr. William Stewart Park, who occupied a most important position there.

Notwithstanding the order issued by the Local Government Board in 1877 that "a pharmaceutical chemist may hold the appointment of compounder for workhouses and dispensaries," it was found in some cases that this was not understood and acted upon, and that consequently our licentiates missed appointments through the ignorance of the official guardians or committees. A deputation waited on Dr. Mooney, the Secretary of the Local Government Board, with the happy result that he stated that whenever any vacancy occurred for a compounder of medicines in any dispensary, his Board would issue an order that the office might be filled by either a duly qualified pharmaceutical chemist or by an apothecary, according as the committee thought fit.

The establishment of a materia medica museum has been long under consideration, but the Council's hands being so full of other matters, it was not possible to mature it. In June last however, Dr. Valentine Ball, director of the Dublin Science and Art Museum, asked the Council to contribute from time to time specimens of vegetable drugs and economic botany. This brought the matter to an issue, and in July the Council affirmed the principle and asked the school committee to report on the subject. We may therefore look forward to this year entering upon a course of very practical education in that direction. Would that our Government was as liberal in such matters as the Colonials.

Examinations are the real test of the Society's advancement not only in numbers but in quality. We could very easily have a very much larger number on our registers if we were willing to admit them on a low educational standard, but I think most of you will agree with me, that our real stability and success depend on our fully keeping up with the necessity of the times. In the higher departments of medical science the licensing and educational bodies are seeing the necessity for a higher standard all along the line, and we who are co-workers with them, must also bear our part in this advance, for our work is the complement of theirs. Our Preliminary examinations this past year have been on the whole satisfactory, notwithstanding the controversy with our Government visitor. We considered that some of his criticisms were unjust, and that some of his suggestions, if carried out, would be unwise and unfair, such as the exclu-

sion of a young man from presenting himself a third time for examination, if he twice failed to pass. On this subject Mr. Hayes read the Visitor's recommendation and his reply (See THE CHEMIST AND DRUGGIST, April 9, 1892).

Of 81 Preliminary candidates who presented themselves, 51 passed. These figures compare favourably with those of any previous year. For the License candidates were fewer than in the previous year—31 against 43—but the passes were exceptionally high, there having been only 4 rejections, which was, I think, the highest proportion of passes since the foundation of our Society. For the Assistant's Examination there were only 4 candidates, of whom 2 passed. Now as to the Druggists' Examinations. The Modified Examinations properly closed last year, but grace was properly extended to some unsuccessful candidates, 13 of whom again presented themselves, of whom 12 passed. This department is now closed. For the Registered Druggists' Examination, 91 candidates came up for examination, of whom 71 passed, against 61 last year, of whom 44 passed. Of course, this examination, though very elementary compared with any of our pharmacy examinations, even the Preliminary or the Assistants', is at the same time searching, and fully tests the qualifications of the man or woman to be a seller, not only of the scheduled poisons, but of many other chemicals and drugs which are quite as dangerous to the public.

It may interest you to know the state of our register now. One apothecary registered as a pharmaceutical chemist, having satisfied the Council not only that he had the Apothecaries' Hall diploma, but also that he had put in his four years' practical work in a *bonâ fide* pharmacy, and that it was not merely a three-months' course in class or hospital, which is now under the conjoint scheme looked upon as sufficient to qualify. Pharmaceutical chemists number 406 against 389 last year. There were three deaths, and seven whose existence could not be ascertained by registered letters. The chemists and druggists and the registered druggists have advanced in numbers considerably, the former being 310 against 227 last year, and the latter 286 against 182. The associate druggists, I regret to find, still consider their interests antagonistic to ours. It must continue to be so if, as has been too much the case, many of that class think they have a perfect right to break the law and defy the Act, if they can do so with impunity. Some of them have even had the audacity to openly deplore the fact that the Council is so hard-hearted as to refuse to wink at their little peccadilloes. However, to come to figures, our members now number 178, and our associate druggists 162, against 157 and 71 respectively last year. So that you see the two camps contain nearly an equal number of fighting men, but I trust with all sincerity that, from this night forward, both parties will bury the battle-axe and the sword, and unite under the olive-leaf, all of us working heart and hand to faithfully and energetically carry the important work committed to our trust, so that if there should be found any to break the law or defy the law, we may be found a strong and united phalanx ready and able to purge our register of the name or names which are a disgrace to a respectable trade and profession. Two kinds of cautionary notices have been printed and issued, plainly setting forth the law and indicating what is unlawful, one to registered druggists, against infringing the Act by dispensing or in any way misleading the public by style or title, and the other to grocers, seedsmen, &c., against the sale of scheduled poisons, or any preparation that may possibly contain them.

There is yet one important subject to be noticed. I refer to the prosecutions. If last year marked the new era under the conjoint scheme secured by the Amendment Act of 1890, this year just ended must ever be memorable in the annals of our Society as the great era of the prosecutions. It is a very painful thing to have to deal with those who have been friends, and who have sat at this Council table with us in the same way as if they were strangers, but we had no alternative but to act towards all alike, and so we issued our favours right, left, and centre. I do not intend to refer to any individual cases, all having been noticed in the trade journals very fully, and having been brought under the notice of the Council by me at each meeting after the prosecution. The public press also took its share in making known the determination of the Council to stop illegal compounding. No doubt the Council has been met by a very determined effort on the part of the law-breakers to thwart and defeat us, if pos-

sible, by devices of various kinds—partnerships, limited liability companies, shops within shops, and making use of legally-conducted houses to do the compounding while a non-legalised house did the dispensing. These devices have all or nearly all been overcome and dissipated, but we had to meet the immense difficulty of local influence which was brought to bear on the magisterial bench to try and get the magistrates to take a lenient view of the transgressions brought before them. I regret to say there have been a few exceptions to this general rule, and the consequence is that it has imposed on us greatly increased law costs; but, though justice is sometimes in those ways hindered, it is not turned back, and in the end it must and will prevail. Neither the Council nor its law committee desire to be harsh, and there have been cases in which the delinquent has appealed to the Council in a proper way and the memorial has been met in a merciful spirit. At our last Council meeting we had such a case, and were unanimous in remitting the half of a fine of 10*l*. But, on the other hand, when, after a wrong course had been taken, the Council was thrown overboard and not even a word of advice or information sought from us, we naturally felt indignant at the authorities, who ought to have been the upholders of law and order, condoning the offences and stultifying the Council in their endeavour to uphold and carry out the Act. You have already seen the correspondence which I have had with Dublin Castle published in THE CHEMIST AND DRUGGIST, and I think you will have remarked that their Excellencies must have felt themselves entirely in the wrong, for "they answered not a word," and I hope by this time they feel thoroughly ashamed of themselves, and if they don't they ought. But unless we get a due acknowledgment from them of their error between this and the opening of Parliament, they may expect to hear something more about it then. (Applause.)

TREASURER'S REPORT.

The PRESIDENT said that since the foundation of the Society they had had but one treasurer—Mr. Edward Mathew Hodgson. (Applause.) He now called upon that gentleman to submit his financial statement.

Mr. HODGSON said he had a prosperous state of things to report. He freely admitted that the present strong position of the Society was largely the result of the Amendment Act of 1890. (Hear, hear.) They had been particularly fortunate in the selection of the house which they were now occupying. It contained all they required, it was paid for, and it would be theirs for a long period. The cost of purchase went into the account of last year. The income of the Society having increased, this year, at his suggestion, stock to the amount of 257*l*. 7*s*. 5*d*. was purchased. That made their total funded capital 505*l*. 10*s*. 6*d*. When their books were last balanced they had to credit in bank 164*l*. 16*s*. 7*d*. The expenditure of the year included sums spent in the fitting up and furnishing of their house, and which would not appear in the accounts again. The total of these items was 209*l*. 5*s*. 5*d*. Since the balancing of the books other funds had come in, which would go into next year's account, and at present they had in bank 262*l*. 9*s*. 7*d*. He had also to lay on the table a list of the members of the Society, and associate druggists, who had paid their subscriptions; and, in conclusion, he begged to say that he felt deeply indebted to the Society for their continued confidence in him. (Applause.)

On the motion of Mr. HOLMES, seconded by Mr. SIMPSON, thanks were voted to Mr. Hodgson for his statement.

Mr. HODGSON, in responding, said that the credit of keeping and making out the cash account belonged to their Registrar, Mr. Ferrall. (Applause.)

THE SOCIETY'S SCHOOL.

Dr. BURNES said that when the Society was constituted two functions were entrusted to it, one being administrative and the other educational. These were twins, and should have grown up together; but during the Society's seventeen years of existence not a penny had been spent on the educational twin. Not a penny had been voted by the Society for the purpose of teaching. No doubt their school of pharmacy was allowed a room in the house. He trusted that the promised museum would be established, and that the

walls of the room they were in would be decorated with glass cases containing specimens. As Secretary of the school he had to announce that five lectures had been promised for the forthcoming season. These would be delivered once a month, alternating with meetings for discussion. The result of last session's work was the receipt of 130*l*. 14*s* 6*d*., of which 103*l*. 18*s*. 9*d*. went in fees to the professors, leaving a balance of 21*l*. 15*s*. 9*d*. The greater part of this balance had been expended in chemicals, &c., for the use of the students, and there remained to credit 3*l*. 14*s*. Last year they started with a deficiency of 1*l*. 5*s*. 3*d*. All the old debts upon the school had been cleared off.

Mr. BOYD moved the adoption of Dr. Burnes' report, and said that the Society's thanks were due to him for what he had done for the school. Mr. GRINDLEY seconded the motion.

Professor TICHBORNE expressed the hope that the evening meetings would be revived, and Mr. Boyd's motion was carried.

THE PRESIDENT'S SERVICES.

Mr. CHARLES EVANS proposed a vote of thanks to the President. Few of them had any idea of the amount of time and trouble that the discharge of the duties of the office of President involved. They were greatly indebted to Mr. Hayes for his efforts to maintain the dignity of the Society, and he hoped that they would be able to maintain him in his present position.

Dr. BURNES seconded the motion, which was unanimously carried.

The PRESIDENT in acknowledging the vote said he was proud of being President of the Society.

REGISTERED AS CHEMISTS AND DRUGGISTS.

Mr. HINCHY, of Kilmallock, said he had travelled 124 miles to ask some questions, and to lay before the Society some matters of the greatest importance to the working chemists of the South of Ireland. He found that by the calendar 311 persons had been admitted as chemists and druggists without having passed an examination. Some of these had no right to style themselves "chemists and druggists"; they were in reality hardware men, grocers, timber merchants, &c., who had never traded as chemists and druggists.

The PRESIDENT: We were bound to register them when they proved that they were carrying on business as chemists and druggists prior to 1875.

Mr. HINCHY: Is a man who styles himself a "tea-importer and hardware and general house-furnishing ironmonger" and sells "bedsteads, palliasses, trunks, carpet-bags, boots and shoes, hats and caps, ready-mades, iron, coal, timber, glass and china, leather, shoe-fittings, hams and bacon, cheese, biscuits, pickles, sauces, seeds, and manure," to be registered as a chemist and druggist? (Laughter.)

Mr. WELLS: Can you prove that he was not selling scheduled poisons before 1875?

Mr. HINCHY: I don't make that statement.

Mr. WELLS: The Council are as anxious as you are to protect both the registered druggist and the chemist, and they have spent months and months in going into these declarations. If you won't undertake the onus of proving that these people are not entitled, we cannot do so.

Mr. HINCHY: I have reported cases, and have never refused to carry on a prosecution and to give evidence.

Mr. WELLS: I don't know to whom you refer; but if you will give the Law Committee proof that the party or parties were not selling poisons prior to 1875 I will undertake—and I am sure the President will do the same—to do my utmost to have their names removed from the register. (Hear, hear.) We have also power to give anyone who has got himself registered by fraud twelve months' imprisonment—that is, if we can get the magistrates to give it to them. A great many applicants were rejected because they did not give us sufficient evidence that they sold poisons before 1875.

Mr. CUNNINGHAM: A great many persons have been registered who, in the opinion of those who know them best, should not have been. Many men who sold all the things that this gentleman has mentioned used, in years gone by, to have a little corner at the end of their shop in which they used to keep a few things in the chemist and druggist's line. I myself saw a man cut a piece of opium with a tobacco

knife, over a vessel containing sugar, and then weigh it in the same scale in which he weighed tea, and wrap the opium in a piece of paper and sell it without a label. It is hard lines on the genuine honest druggist of the country to have such men competing with them.

Mr. WELLS: Our Registrar has reams of documentary evidence, and if Mr. Hinchy can give us evidence to upset it, we will upset the cases. We all know that persons have been registered who ought not to have been; but the Council did their best to keep them off.

Mr. HINCHY gave particulars of one or two cases.

The PRESIDENT: Any case that you bring before us will be thoroughly investigated. You little know the amount of trouble that the Law Committee and the Declarations Committee have taken about these matters. In one of the cases that you brought before us a fraud was detected, and the person was rejected.

Mr. HINCHY asked what course was to be taken with respect to illegal compounding and dispensing by companies.

The PRESIDENT: That matter is at present under consideration, both by the Council and their legal adviser. We cannot give you any further information at present, but you may rest satisfied that the Council will do their utmost to carry out the law.

Mr. HINCHY: A short time ago I gave 10*l*. for the prosecution of an illegal establishment. I am open to do the same thing again, and any time that the Council want 10*l*. towards expenses it will be there for you. (Applause.)

The PRESIDENT: If all our members were as earnest and determined as Mr. Hinchy we should have little trouble in carrying out prosecutions.

ELECTION OF COUNCIL.

The PRESIDENT then announced the result of the ballot as follows:—Hayes, 188 votes; Montgomery, 161; Wells, 152; Grindley, 150; Conyngnam, 142; Merrin, 142; and Gibson, 135. The foregoing he declared duly elected for three years. The voting for the other candidates was as follows: Hazlett, 117; Hanson, 113; Turkington, 112; Moore, 112; and Healy, 105. He (the President) thanked the Society for placing him at the top of the poll. He believed that a large number of chemists and druggists had voted for him. Mr. Montgomery and Mr. Wells, he believed, had also secured the confidence of the registered druggists. Mr. Wells and Mr. Grindley had been the very backbone of the Society for years. The result of the election was that all the outgoing members of the Council had retained their seats on it.

Mr. WELLS, who on rising was applauded, said he felt very much obliged to those who had voted for him. He was glad to know that he had the confidence of a good many registered druggists. He had been favoured with letters from some of them whom he had never seen stating that they felt it their duty to support him, as they thought that their interests were safer in his hands than in those of others on the Council.

THE EXAMINER IN PRACTICAL PHARMACY.

Mr. MCWALTER, pursuant to notice, called attention to the circumstances under which Mr. T. W. Robinson had been recently elected the Society's Examiner in Practical Pharmacy. His object was not to cast any personal slight on Mr. Robinson, but to lay down the principle that the best persons should be elected. An advertisement in THE CHEMIST AND DRUGGIST stated that the election was to take place at the Council meeting of August 3, and that the applications of the candidates should be in before July 27. According to a rule in the calendar no member of the Council was eligible for the appointment of examiner. There were eight other candidates. In the official organ of August 6 it was announced that Mr. Robinson, having resigned the office of vice-president of the Society and his seat on the Council, had been elected to this examinership. From the detailed report in the next issue of the same journal it appeared that Mr. Robinson, in order to make his candidature legal, had sent in a letter of resignation to the Registrar. But he (Mr. McWalter) submitted that that letter was not sufficient to divest him of his responsibilities as vice-president and member of the Council. At the Council meeting of August 3, at which the election took

place Mr. Robinson was still, he contended, vice-president of the Society and a member of the Council. According to the report of the proceedings which appeared in the journal, Mr. Robinson's letter of resignation addressed to Mr. Ferrall had no date. The election was reported to the Privy Council, who sanctioned it, but their assent was only given subject to the provisions of the Pharmacy Act. He (Mr. McWalter) hoped he was not going too far when he said that the unanimous election of Mr. Robinson was to some extent due to the feeling of friendship which his long connection with the Council had engendered in the minds of his colleagues. (Cries of "No.") He submitted that Mr. Robinson's case was not legally on the agenda-paper for the meeting of August 3, because he had not then ceased to be a member of the Council, and that his election was at all events a violation of the spirit of the rule which was intended to prevent such elections. He had never heard of any services rendered by Mr. Robinson to practical pharmacy that justified his election in preference to the eight other candidates.

MR. WELLS: I think the speaker is now going into personalities.

MR. MCWALTER: It is not a personality to say that he has no monopoly of pharmaceutical knowledge.

THE VICE-PRESIDENT: Mr. Robinson had the unanimous confidence of the Council when he was elected, and of a very large number of licentiates.

MR. MCWALTER: My point is that his reputation did not justify it, and that his election was due to the personal friendship that members of the Council had for him. ("No.")

THE PRESIDENT: You had better keep to the law of the case. If you can convince us that we have done an illegal act we'll try to undo it.

MR. MCWALTER moved the following resolution:—

That no person shall be elected to an examinership by the same meeting of the Council which accepts his resignation as a member of that body.

MR. WELLS contended that, according to the Act, when Mr. Robinson sent in his resignation he ceased to be a member of the Council. ("No.")

MR. MCWALTER: My point is that it was a mean evasion. (Cries of "Withdraw.")

THE PRESIDENT: Mr. McWalter must not use scurrilous language.

MR. MCWALTER: The words, "mean evasion," were used by Mr. Wells in reference to some prosecution in this city.

MR. BERNARD said he could speak independently in the matter, and he affirmed that the qualifications and capabilities of other candidates were thoroughly thrashed out before the Council gave the unanimous vote in favour of Mr. Robinson.

MR. JOHN EVANS said there were always two members of the Council, and also the Government Visitor (Dr. Duffey), present at the pharmaceutical licence examinations of the Society, which were superior to those of the Apothecaries' Hall and the College of Surgeons. (Applause.) The Society ought to be extremely glad to have a man of Mr. Robinson's experience as an examiner, and he (Mr. Evans) was quite sure that he would make as good an examiner as ever they had. (Applause.)

Professor TICHBORNE said he desired to state the reasons why he supported Mr. Robinson. There were seven other candidates, many of them excellent men. Two of these were personal friends of his own, whom he should have had great pleasure in voting for, as they were very good men. Mr. Robinson was for many years a practical compounder in connection with establishments in the city, and from his connection with the Council he had considerable knowledge of the business of the society. He (Professor Tichborne) believed that their examiners should be specialists, and for that and the other reasons he voted for Mr. Robinson, although he was not a personal friend of his.

DR. BURNES, MR. WELLS, and MR. CHARLES EVANS explained the reasons which had influenced them in voting for Mr. Robinson, and the motion of Mr. McWalter was then put and negatived, it appearing by a show of hands that 9 were for and 21 against it.

THE PRESIDENT said Mr. Robinson's character spoke for itself. He was quite satisfied that the Council had acted legally. Mr. Robinson's letter of resignation was dated

July 25, although the date was omitted from the report of the proceedings at the Council meeting of August 3 after the reading of the minutes. Mr. Robinson's resignation was duly accepted. His successors as member of the Council and Vice-President were then appointed. After that the election was proceeded with, and the result of full consideration was that members who supported other candidates withdrew them, and the final vote was given in favour of Mr. Robinson. The Council did not act from favour, but did the best they could for the Society.

A WORD FOR THE REPORTER.

On the motion of Dr. BURNES, a vote of thanks was passed to Mr. Macartney for the careful and accurate manner in which he had reported the proceedings of the Council and Society.

Personalities.

MR. WILLIAM OPPENHEIMER left on Wednesday on a business-visit to the United States.

MR. LUDWIG MOND, the well-known chemist, is a warm patron of art, and has one of the finest collections of Old Masters in this country. It is Madonnas that he particularly favours.

CHEMISTS may claim a distinct relationship with the late famous Poet Laureate. Lord Tennyson's great-grandfather, Richard Tennyson, was an apothecary at Stainton, in Lincolnshire.

THE proprietor of Kop's Ale, Mr. Loewenfeld, has become the proprietor of the *Pall Mall Gazette*. The anti-Radical rival of that journal, the *St. James's Gazette*, is owned by Mr. Steinkopf, the head of the Apollinaris Company. Such are some of the effects of drink.

PROF. HANKIN, B.A., who has been appointed bacteriologist, chemical examiner, and analyst to the North-West Provinces and Oude, before leaving for India last week swallowed some of Haffkine's "virus exalté"—that is, cholera germs twenty times as virulent as the ordinary thing—without any other consequence than that of a slight diarrhoea. He had previously been treated with the Haffkine protective virus.

MR. WILLIAM JOHNSTONE, whom the Council of the Institute of Chemistry have recently ejected from that society, has his revenge upon them. He calls himself "Emeritus Fellow of the Institute of Chemistry," and this is a distinction which no other shares with him. The Registrar of the Institute points out in the *Chemical News* that "no such title as Emeritus Fellow of the Institute exists," and that Mr. Johnstone agreed in Court not to use in future the title of Fellow or Member of the Institute.

Gazette.

PARTNERSHIPS DISSOLVED.

Bonsor, R., Bonsor, R. C. H., & Bonsor, M. W., under the style of J. & R. Bonsor & Co., Bradford, manufacturers and merchants of dyes; as far as regards R. Bonsor.

Clayton, J., & Garbutt, J. H., under the style of Barclay, Clayton & Co., Gervase Street, Old Kent Road, S.E., mineral and aerated water manufacturers.

Galer & Taylor, King Henry's Walk, Ball's Pond, N., glass-blowers and bottle-manufacturers.

Hollingworth & Pickard, Sheffield, chamois-leather manufacturers.

Horsfall & Ewbank, Pontefract, liquorice-cake manufacturers.

Martin, J., & Glover, W. C., under the style of Martin, Glover & Co., St. Leonard's-on-Sea, drug and dyers, mineral and aerated water manufacturers.

PARIS SOCIETY OF PHARMACY.

The first meeting of the winter session of this Society was held on Wednesday, September 5. The proceedings opened with an attendance of fifteen members, which later on increased to twenty-two. After some time had been passed in conversation, this being the first reunion since the holidays, the minutes were duly passed, and M. Portes, the President, who occupied the chair, provoked some amusement by relating that he had received another letter from the irrepressible M. Bonlé concerning

THE PRESERVATION OF CHLOROFORM.

The tenor of the letter read by the President was to reassert the claims of the Algiers pharmacist to the invention of the idea, while at the same time he thanked the Society for its courteous consideration of the matter. The good-natured tone of the epistle led to its being patiently heard by the meeting, and M. Portes humorously refrained from reading the latter portion, which was supposed to contain a flattering reference to himself. MM. Leidié and Bürker having expressed their ideas on this fertile subject, the Chairman went on to announce that communications have been received from various pharmacists desirous of being elected as

CORRESPONDING MEMBERS.

These were handed to the committee for consideration, as customary. One of these gentlemen, M. Vizern, of Marseilles, had accompanied his application with a list of his contributions to pharmaceutical literature, which are numerous, and by a treatise which M. Portes promised to read later on. In reference to this subject M. Portes asked if the committee for the election of corresponding members would also consider the applications for titular membership; but the general feeling seemed to be that a separate committee should deal with the latter subject.

POISONING BY MUSHROOMS.

M. Bourquelot made some remarks on his inquiry into the cases of mushroom-poisoning that have occurred near Angoulême. It seems that this active pharmacist, combining autumn holiday with scientific research, attended at Pau the recent annual meeting of the Association Française (the Gallic equivalent of the British Association). On his return from the South, M. Bourquelot, accompanied by another pharmacist, visited Angoulême, with a view of finding out the exact species of mushrooms which had caused the deaths. These gentlemen endeavoured to follow the very paths which had been taken by the persons who picked the mushrooms. They were baffled again and again by the inexactitude of the people in the district, but by perseverance they finally discovered a young lady of sufficient intelligence who was able to indicate the spot where the fatal fungi had been gathered. M. Bourquelot found three sorts, and after minute inquiries discovered that it was the *Amanita phalloides* that caused four out of the five fatal cases. Having subjected this to analysis he found it to be of the most deadly character. M. Bourquelot pointed out that its distinguishing characteristic was a silky shining appearance; it was this which finally secured its identification by the country people. Some of the fibres, which are friable in the ordinary *amanita*, were tough and elastic. Death was speedier than is usual in cases of mushroom-poisoning. An animated discussion ensued upon the rapidity of toxicity of the fungi, and it was stated that with other species the poisonous symptoms do not appear within twelve hours.

M. Portes then read a paper by M. Vizern on

BICARBONATE OF SODA,

in which the writer criticised some of M. Patein's conclusions on the subject. M. Patein replied with some warmth, the gist of his remarks being that the object of his (M. Patein's) paper was to show that phenolphthalein immediately showed the presence of carbonate. M. Grimbart presented the results of his experiments on the quality of the

CHLOROFORM

supplied by the Pharmacie Centrale, which has been lately the subject of some discussion. After keeping for two

months he found it perfectly good. M. Bürker said the same attacks were made some years ago, and in his official capacity at the Val de Grâce Military Hospital he made the same experiments, and was convinced of the high quality of the chloroform. An enormous amount is kept in that establishment for the army medical service. He had left it in different places and without any precautions for six months, and found it pure; it did not spoil. Rectified alcohol is used. "Of course," said he, "we needn't expect it to keep for years." (Laughter.) M. Viron said pure alcohol should be used—not alcohol at 85°, for example; that would not keep it pure. M. Grimbart said he had added water to his. M. Bürker: You only left it two months (which remark induced laughter that had to be silenced by the President). M. Leger said five or six years ago it was not rare to find the chloroform containing foreign substances, but at present it left nothing to be desired as to quality. M. Bürker said that was so; years ago they had to change their stock constantly, but now never—or, at least, hardly ever.

The President of the Society announced that he had been recently making researches as to certain microscopic forms which he had found in

ALGERIAN FIG WINE.

His conclusion had been that the star-shaped bodies were a sign that the wine was not the juice of the grape. But a friend of his in Algeria had given him his solemn assurance that a certain wine was the pure product of the vine, and yet he found the same forms. His curiosity being aroused, he analysed certain grapes, and found his friend's assertion confirmed. His numerous researches led him to the idea that a bacillus similar to the "microbe de Latour" was to be found. He had studied the Italian translation of a German paper on the subject, and intended to push his inquiries further.

Some formal business as to the election of committees and the admission of new corresponding members terminated the meeting about 3.20 P.M.

BANKRUPTCY REPORTS.

Re JONATHAN STEPHEN, Devonport, Chemist.

At the Stonehouse Bankruptcy Court last week, this debtor came up for adjourned public examination. Mr. J. G. Jackson, solicitor, appeared for the debtor, and produced elaborate accounts as to his dealings. The Official Receiver remarked that debtor's business accounts appeared to have been well kept, and it was his private transactions which had brought him to his present position. Mr. Jackson made an application to the Registrar for an allowance for assistance with the accounts, but this was refused. Debtor was allowed to pass.

Re SAMUEL HERBERT FRY, 5 Chandos Street, Charing Cross, and Southsea Road, Kingston-upon-Thames, Dry-plate maker, trading as the Fry Manufacturing Company.

THIS debtor attended last Tuesday's sitting of the London Bankruptcy Court, before Mr. Registrar Brougham, for his public examination. The accounts show total liabilities, 3,509*l.* 14*s.* 8*d.* (unsecured, 2,938*l.* 11*s.* 10*d.*); and assets expected to realise 2,618*l.* 3*s.* 1*d.*. Replying to Mr. H. Brongham, the Official Receiver, the debtor said he commenced business in July, 1890, as a dry-plate manufacturer, under the style of the Fry Manufacturing Company. Previously he had been manager to a limited company, and he then arranged to purchase the business for 1,500*l.*, the company being wound up by a liquidator. He was joined by a partner, who provided one-half of the purchase-money. The partnership was continued for six months, when the partner, being unable to introduce further capital as arranged, withdrew from the firm, receiving 800*l.* in cash, that being the amount he had paid in. The assets and liabilities were taken over by witnesses, who continued the business under the same style as before. He borrowed the 800*l.* to pay out the partner, and this was included in the liabilities. Prior to the dissolution the trading had resulted in a small profit, but shortly before the present proceedings witness became aware that a loss was being made. The greater portion of the present debts was for moneys

lent for and expended in the business. A sum of 1,250*l.* included therein had been advanced by the mother of witness. The assets certainly ought to produce sufficient to pay 10*s.* in the pound. Some three months before purchasing the business witness executed a post-nuptial settlement, under the terms of which his wife became possessed of the household furniture. He was then perfectly solvent, and did not contemplate any future difficulties. This was his first failure.

There was no opposition on the part of creditors, and the debtor was allowed to pass.

Trade Notes.

A PATENT for Chinnery's aerated-water apparatus has been granted in the United States.

THE "ÉLITE" TOILET LANOLINE-CREAM, which is the latest novelty introduced by Messrs. Burroughs, Wellcome & Co., is an extremely pleasant and useful salve for toilet use. As a lanoline preparation it will keep indefinitely. It is particularly noticeable from being put up in aluminium cases—very light, incorrodible, and of silvery appearance.

IN our Summer Special Messrs. Fletcher, Fletcher & Stevenson advertised a prize competition in connection with their concentrated liquors. Competitors were to send in formulae for and specimens of mixtures for cough, diarrhoea, fever, indigestion, liver, and tonic medicines, to be made from Fletcher's concentrated liquors. We nominated pharmaceutical and medical experts to judge these mixtures, and on their markings Messrs. Fletcher, Fletcher & Stevenson have awarded the prizes. They announce the result in their advertisement this week. Two competitors get 3*l.* 10*s.* each, and two others take 1*l.* 15*s.* each.

TASMANIAN EUCALYPTUS OIL.—It is now some years since we mentioned the fact that the distillation of eucalyptus oil was to be undertaken in Tasmania on a commercial scale. That island colony is peculiarly fortunate in the matter, as there, it is said, the *Eucalyptus Globulus* is the only species growing. From the leaves of these trees the Tasmanian Eucalyptus-oil Company distil the "Platypus" brand of oil, which is now being offered in this country. The oil has a specific gravity of 0.9125, and its characteristics generally are those of a pure eucalyptus oil of good fragrance. It is put up in bottles ready for retailing, the company having the intention of making it a popular medicine; and to aid in making it known Dr. Benjefield, of Hobart, has written a terse essay on "Eucalyptus Globulus," which is worth reading. The company's office in London is at 138 Leadenhall Street, E.C.

Business Changes.

MR. P. HOLMES, chemist and druggist, has purchased the business of Mr. McCreach, carried on at 39 High Street, Margate.

THE business until lately carried on by Mr. W. Wyles at New Bridge, Dover, has been purchased by Mr. T. Long and his brother.

THE partnership which has existed for nearly nineteen years between Charles Symes and Joseph Hallawell has been dissolved by mutual consent. Mr. Symes continues the wholesale and manufacturing business at Pilgrim Street and the retail pharmacies at 14 Hardman Street and 58 Bold Street, under the style of Symes & Co. as heretofore. Mr. Hallawell continues the export business at 63 Wood Street, under the style of J. Hallawell & Co.

PATENT MEDICINES.—The revenue from medicine stamp-duty for the year ending March 31, 1892, realised 240,062*l.* In the previous year the amount obtained was 225,701*l.* The number of licences issued in the year was 26,597 in England and Wales, and 2,412 in Scotland, or 28,746 (in the whole of Great Britain) against 27,295 in the previous year.

MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

ARTHUR—CLEMO.—At the parish church, Camborne, October 3, 1892, Samuel Arthur, chemist and druggist, Lostwithiel, to Lillie Clemo, of Camborne, Cornwall.

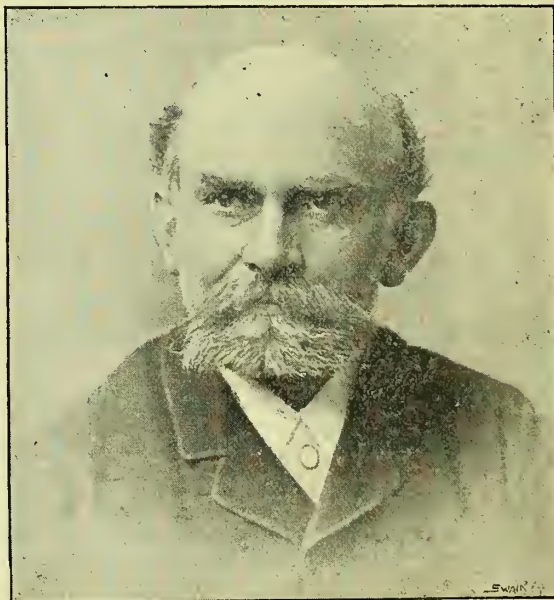
GRIFFITHS—HARDEN.—On September 24, at the Wesleyan Chapel, Cotham, Bristol, Mr. H. T. Griffiths, chemist, Clifton, to Miss Florence Mabel Harden, of Bishopston, Bristol.

MOSS—HUMPHREYS.—On September 28, at the parish church, Westbury-on-Trym, by the Rev. J. Hamlyn Hill, Frank, third son of Joseph Moss, of Nottingham (late with Messrs. Giles, Schacht & Co.), to Kate Minnie, youngest daughter of George Humphreys, of "Darnley," Carnarvon Road, Redland, Bristol.

DEATHS.

CLARK.—On October 2, at 11 The Square, Portsoy, N.B., George Alexander, eldest son of James Clark, chemist and druggist. Aged 25.

CYRIAX.—We regret to have to record the death of Mr. Julius Cyriax, of the firm of Burgoyne, Burbidges, Cyriax & Farries, wholesale druggists, of 16 Coleman Street, E.C. Mr. Cyriax, who had been suffering from heart-disease for three years, started on a continental holiday-tour about two months ago, feeling then comparatively well. After visiting Bayreuth for the purpose of attending a Wagnerian celebration he went to Sweden, and there, at Sanna, he was seized about four weeks ago by what proved to be a fatal attack of his complaint. He succumbed on Thursday last, September 29. The deceased, who was in his 53rd year, was the son of a wholesale druggist in Gotha, Germany, and



came to London about thirty years ago, his first engagement being with the now extinct drug-firm of H. C. Schneidt & Co., then located at 12 Mark Lane, E.C. Subsequently he started business on his own account in Basinghall Street as a general commission merchant, one of his agencies being that of the Hunyadi Janos waters, and there, about the year 1874, he was joined by Mr. Thomas Farries, a pharmaceutical chemist, who had been for some years with the firm of Burgoyne, Burbidges & Co. Two years afterwards the two partners in the latter firm retired from active commercial life, and Messrs. Cyriax and Farries then amalgamated their business with that of the old firm, which from that date assumed the style it now bears, and has grown to be one of the largest concerns of its kind in the world. Mr. Cyriax leaves a widow and a family of six

children. Apart from the druggists' circles, where he was very popular, Mr. Cyriax was a well-known figure in the musical world, and ranked among our best non-professional musicians. He was an ardent follower of Richard Wagner, whose acquaintance he made in 1877 when the composer paid a visit to this country, and became one of the founders of the London Wagner Society, in the transactions of which he took an active interest until his death.

DAVIES.—On October 3, Mr. William Davies, of Llandilo, chemist and druggist. Aged 60. About twenty-five years ago the deceased was very popular in Eisteddfod circles as a successful competitor in Welsh poetry, and as an adjudicator under the Welsh name "Gwilym Teilo." Mr. Davies has left behind him a large number of manuscripts of his unpublished compositions, both in prose and poetry.

KIRKLAND.—Mr. John L. Kirkland, a son-in-law of Mr. John McKesson, junior, and a member of the firm of McKesson & Robbins, and also the leading spirit of the New York Quinine and Chemical Works, of which he had been secretary since 1885, died suddenly (says our New York correspondent) on September 25, within half an hour after his return from Montreal, where he had been in attendance upon the annual meeting of the National Wholesale Druggists' Association. Mr. Kirkland will be remembered in London and on the Continent as having made one or two trips abroad with a view to affecting an arrangement somewhat in the nature of a pool among the various manufacturers of quinine. Efforts in this direction, however, were fruitless. The cause of Mr. Kirkland's death was heart-disease. The deceased, who was originally in business as a stockbroker in Wall Street, was 50 years of age, and leaves a widow and four sons.

LEAROYD.—On Monday, October 3, at London Road, Lowfield, Mr. E. R. Learoyd, surgeon-dentist, suddenly, aged 49. The deceased gentleman for many years carried on business as a chemist and druggist and surgeon-dentist in Washington Road, Sheffield, and afterwards at Loudon Road, and was, some years ago, President of the Sheffield Pharmaceutical and Chemical Society. Mr. Learoyd leaves a widow and one child.

LONGSTAFF.—On September 23, at his residence, Bnterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year. The deceased was an original Fellow of the Chemical Society, and founder of the Longstaff medal which that Society presents periodically to the members most distinguished in research. He graduated in 1828 M.D. at Edinburgh, at which University he was for some time assistant to Dr. Hope, Professor of Chemistry, and in that capacity is believed to have been the first teacher of practical chemistry to medical students in this country. He practised for some years as a physician at Hull. After spending some years in America he engaged in commercial pursuits, and was chairman of Blundell, Spence & Company (Limited) for many years, and a director of that company till his death.

COMPANY MEETING.

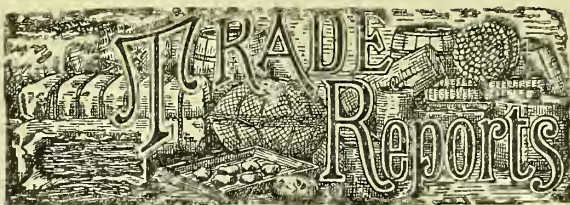
SEQUAH (LIMITED).—The second annual meeting of this company was held on Wednesday. The report and balance-sheet showed a loss 24,050*l.* 4*s.* 5*d.* of which 6,153*l.* 6*s.* 11*d.* is set down as depreciation of plant, 4,500*l.* being a reserve, and 1,002*l.* 13*s.* 8*d.* being for income-tax, previous dividends having been paid free of income-tax. Past advertising accounts also come into this year's accounts. The "stock of drugs" figures in the balance-sheet at 2,403*l.* 2*s.* 7*d.* in England, and 8,980*l.* 1*s.* 5*d.* abroad and afloat. "Goodwill and trade-marks" appear as an asset to the amount of 238,947*l.* 7*s.* 10*d.* Mr. Oliver, who occupied the chair, said the directors regretted to have to submit such an unsatisfactory report, but he thought they could explain it. Two years ago they were doing a marvellously good business. Their remedies were finding great favour in every town they went to, and marvellous cures were effected. But the backbone of the business depended on their method of introducing the remedies to the public. They had gone to large expense in outfits for this business, and Mr. Hartley had secured some twenty or more able representatives, who made remunerative sums for themselves, and at the same time

brought in very good results for the company. Suddenly they had notice from the authorities giving them fourteen days in which to discontinue selling the medicines from waggons, and stating that it was illegal by a recent Act to sell medicines in that manner—that they could only be sold through the medium of a duly qualified practitioner, and from a shop, and not from a waggon. They tried to get over the difficulty by engaging chemists and getting them to go round with the waggons, but even that was not allowed. They went to the best barristers of the day, and had interviews with Somerset House, pointing out to the authorities that the thing was doing good, and that the public were suffering from not having these remedies. In spite of all, however, some influence was at work, though they did not know whence it came, and they had to discontinue the sale in England. They then resolved to make up if possible for the loss of trade here by sending representatives abroad. They did well in South Africa. Mr. Hartley himself went to Spain, and found that the Imperial laws of the country allowed the remedies to be sold in the manner found so successful in England, and they, therefore, thought they were justified in opening a factory for the manufacture of the medicines in Spain. They met with great success there. The people saw marvellous cures performed before their eyes which they had not imagined to be possible before, and they bought the medicines readily. But later on, when the medical men found their business falling off, they used their influence with the mayors of towns, who were able to put such obstacles in their way as to make the Spanish trade of no profit. In India they had suffered from the depreciation of the rupee. In Belgium they had been for a time very successful, but then through the influence of the medical men the king had been induced to sign a decree giving them forty-eight hours' notice to quit the country. Similar results followed in France. They had introduced their remedies into Burmah, the Straits Settlements, and Japan, and in those countries the business was proceeding satisfactorily. Mr. Hartley gave an account of his experience in the United States. He educated two men in his business, spending three weeks in a room with them. He had waggons built and spent something like 4,000*l.* Then laws were passed preventing anyone except qualified physicians or chemists from selling medicines. Many of these laws were passed after the company's representatives had arrived. Some of the shareholders present commented rather bitterly on the result, and ultimately, on the suggestion of Mr. Stuart Cumberland, a committee was proposed to confer with the directors. The directors refused this, and by means of proxies that proposal was defeated by a large majority. The report and balance-sheet were adopted. Mr. Hartley was re-elected a director, but Mr. Ridsdale, the chairman of the company, was rejected. Mr. Oliver announced that a reconstruction-scheme would shortly be submitted.

NEW COMPANIES.

GLASGOW NERVETONINE.—Registered in Scotland to purchase from Mark Foggitt Thompson, homoeopathic chemist, Gordon Street, Glasgow, the whole rights of compounding or otherwise manufacturing and selling or otherwise disposing of the compound drug or medicine known as "Nervetouine," together with the goodwill of the business and all rights and interests connected therewith, and to undertake the burdens and obligations appertaining to the manufacture and sale thereof. Capital, 5,000*l.*, in 1*l.* shares. First subscribers: Mark Foggitt Thompson, chemist, 17 Gordon Street, Glasgow; Selina Thompson, wife of Mark Thompson, 7 Royal Crescent, Crosshill; Robert G. Morton, accountant, 179 West George Street; William Forbes Robertson, 146 West Regent Street; Robert Knaggs, jute manufacturer, 363 Sauchiehall Street; Joseph Knaggs, jeweller, 363 Sauchiehall Street, Glasgow; and Emmanuel Thompson, chemist, 97 Princes Street, Edinburgh.

The following have also been registered:—Cleansing Syndicate (Limited), capital, 10,000*l.*; New Sulphur-recovery Syndicate (Limited), capital, 10,000*l.*; Norris Magnetic Embrocation (Limited), capital, 20,000*l.*; and the Western Infirmary of Glasgow.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., October 6.

London. We are pleased to be able to report a considerable improvement in the drug and chemical markets this week. Many articles have advanced in price, and there is a strong current of orders for *bond-fide* consumption. Speculative buying, however, is limited to one or two articles, of which quinine is the most important. In the department of drugs, raw camphor fully maintains its position, while senega, cascara sagrada, and ergot of rye have been dealt in at improved prices. Russian anise, canary-seed, cumin-seed, caraway, and coriander are all higher in value. The new crop of orris is coming in and prices remain firm; opium is also at full prices, but there is not much stirring in this article. Some foreign agents, on the other hand, report improved values for insect-flowers. Valerian-root has been slightly advanced both for French and Belgian, while clove and caraway oils have risen in sympathy with their raw material. Tinnevely senna is in very short supply and likely to be dearer; American oil of peppermint is offering at lower rates; ordinary kinds of sarsaparilla are giving way; and the high values which have long ruled for star-anise are apparently breaking down, though there is no supply offering on the spot as yet. Eucalyptus oil continues in good demand, and there has been a strong inquiry for ipecacuanha, of which prices show a fresh advance of 3d. to 4d. per lb. since last auctions. The principal feature of the week in fine chemicals has been the sudden rise in quinine, which has advanced fully 10 per cent. in the course of twenty-four hours. The business, however, appears to be of a speculative character. American bromide of potassium is dearer, chloroform has been advanced in price, and German refined camphor is also quoted a little higher. Citric acid maintains its value without difficulty, and lower prices are given for carbolic acid, tartaric acid, oxalic acid, and chlorate of potash. In outside articles the only decline worth recording is in nutmegs, but apart from this there has been an excellent tone for all spices, with rising values for cloves, chillies, pimento, ginger, black and white pepper, and mustard-seed. Linseed is also much dearer, with a heavy business; shellac has advanced; for Jamaica wax higher prices are asked; and cocoa butter sold dearer at the monthly auctions. Ceylon coconut oil, cotton-seed oil, linseed and rape oil are also higher; gum olibanum brought better prices to-day, and the tea market is generally better.

New York. Our correspondent states that on September 27 the New York drug and chemical markets were quite active, while the majority of changes that had occurred were toward a higher plane of prices. The meeting of the National Wholesale Druggists' Association in Montreal took several well-known members of the trade out of town, but their absence did not affect business. Sales of some 16 packages of Central American *Balsam Copaiba* are reported at 34c. The market in Angostura and other grades of balsam is quiet but steady at unchanged prices. *Cascara sagrada* is being inquired for, and 5½c. to 6c. has been paid for large lots, and 6c. to 7c. is asked for further supplies on the spot, though for lots now under way for this port something

less would be accepted. The market in Mexican *vanilla beans* continues very strong, though without quotable advance. Angostura *tonquin beans*, though less active than vanillas, are almost as strong. Oil of *peppermint* remains practically unchanged, and holders are not in unison on quotations, which vary with each one—a pretty good indication that not much buying is going on. The latest arrivals of *Jalap root*, some 28 bales, are said to be not of desirable quality. Quotations range from 30c. to 42c. as to quality, holder, and size of lot wanted. Still further arrivals of *Mexican sarsaparilla* have had the effect of bringing the price of Tuxpan down to 9c. The liberal buying orders from England have about cleared the market of Tampico root and, for the present at least, averted any further decline. No Western *Senega* is offering at the moment, and the tone of the market is very strong. *Tartaric acid* has advanced to 24½c. for crystals, and 25½c. for powdered. *Acetic acid* is quiet at 160c. to 165c. *Oxalic acid* is in good demand, and stocks are being lightened; prices range from 6½c. to 6¾c. The export demand for *Acetate of lime* is better, as shippers want to avail themselves of the present freight-rate, an advance having been announced in freights for October. The demand for *Opium* is fairly satisfactory, and \$160 is the quotation for case lots. *Morphia* is in rather better demand at unchanged prices. *Quinine* improved somewhat during the latter part of last week, 18½c. to 19c. being required, though no large volume of business is reported. *Ergot* has been advanced to 57½c. to 60c. for German, and 65c. to 70c. for Spanish, but there is no demand. *Lycopodium* has further advanced to 50c. to 55c. under the influence of an active consumptive demand. *Menthol* is somewhat stiffer at \$3-05. *Camphor* has also advanced, and 48c. to 49c. is now wanted for refined, the change being in sympathy with market for crude. *Shellacs* are strong and active.

ACID (CITRIC).—Makers still ask from 1s. 6½d. to 1s. 7d. per lb., but there are second-hand holders willing to accept 1s. 6½d. per lb. The tone of the article is not altogether so firm as it has been. For concentrated juice 21l. 15s. f.o.b. is the latest quotation. The following are the exports of citric acid from the port of London:—

	1892	1891	1890	1889
	Cwts.	Cwts.	Cwts.	Cwts.
September	785	437	546	341
First nine months	6,008	3,579	4,917	4,259

The imports of concentrated juice have been:—

	1892	1891	1890	1889	1888
	Pipes	Pipes	Pipes	Pipes	Pipes
January 1–September 30 ..	1,975	1,521	3,242	3,554	3,199

ACID (OXALIC) is lower, and may be had on the spot at 3d. per lb.

ACID (TARTARIC).—Flat and easier in second-hand. The makers of English (B.P.) acid require 12d. per lb. still, but foreign brands may be had from 11d. to 11½d. per lb.

ANISE.—The new *Russian* crop, though of fair quality, is said to be one of the smallest on record. The price asked for good new seed is 23s. per cwt.

ANISE (STAR).—It is said that a fair amount of business has been done in this article for arrival at somewhat better prices, viz., 76s. to 78s. c.i.f. for October shipment. Fifty piculs of new crop star-anise had arrived on the Hong-Kong market on September 1, but the quality, as is usual with the first arrivals of the season, was too poor to suit for export.

BROMIDE OF POTASSIUM.—The American agents issued a notice this week quoting the revised price of 1s. 1d. per lb., c.i.f. terms, and adding that this advance probably marked the close of the "war." To this the representatives of the German combination have replied to the following effect: "We are able on the best authority to declare that there is neither the chance nor, at present, any attempt on the part of producers to come to any agreement whatever. So far as we can judge from information to hand the (American agent's) remarks were nothing more or less than the expression of a personal opinion, entirely unauthorised and unwarranted by circumstances."

CAMPBOR (CRUDE).—The only sale reported this week is one of 100 piculs September-October shipment at 142s. 6d. c.i.f. terms. The market remains very firm, and 160s. per cwt. is asked for *Japan* on the spot, while for October shipment 150s. per cwt. c.i.f. is quoted for *Japan*, and 137s. c.i.f. for *China* camphor.

CAMPBOR (REFINED).—No change in *English* brands. *German* has been raised $\frac{1}{2}$ d. per lb. by the makers, who now quote 1s. 7 $\frac{1}{2}$ d. per lb. net for hells.

CANARY-SEED.—On Friday last *Turkish* seed sold at 80s. to 82s. 6d., and the former figure is still the lowest quotation to-day. *Spanish* seed is firm at 85s., and there has been a good trade in *Barbary* kind at 77s. 6d.

CARAWAY-SEED.—A parcel of 90 hags old crop *Dutch* seed sold at 21s. 6d. per cwt. at auction. That, however, was "without reserve," and one cannot buy at the price in the open market.

CASCARA SAGRADA.—The rise has not been quite checked, but the first rush of prices has given way to a slow and steady advance. From 44s. to 45s. per cwt. has been paid this week, and 50s. is now generally asked; but we think that there are still one or two holders who would not refuse 45s. now.

CHLORATE OF POTASH.—The market is somewhat easier. The Union ask 8d. per lb.; second-hand holders quote 7 $\frac{1}{2}$ d. to 7 $\frac{3}{4}$ d., f.o.b.; and for delivery over next year 6 $\frac{1}{2}$ d. per lb. would be accepted.

CHLOROFORM.—The price of methylated was raised by one of the Scotch makers to 1s. 6d. per lb. last week, and of pure, from rectified spirit, to 4s. 3d. per lb. It is probably possible to shade these quotations slightly for contracts.

CINCHONA.—The auctions held here on Tuesday were very small in extent, and consisted principally of Ceylon bark. The catalogues comprised:—

	Packages	Packages
Ceylon cinchona ..	937 of which 804 were sold	
East Indian cinchona ..	74 "	74 "
Java cinchona ..	30 "	30 "
West African cinchona ..	277 "	277 "
South American cinchona ..	456 "	200 "
	1,824	1,385

The assortment was very poor; no yellow, and few grey barks of Eastern growth, being offered, but there were some very fine parcels of red chips and shavings, both original and renewed, from Ceylon. At first the prices appeared to show a lower tendency, but the competition gradually improved, and at the close of the sales the unit was practically equal to that of the previous auctions, and slightly above the average at last week's Amsterdam sales. It may therefore be placed at 1 $\frac{1}{4}$ d. all round. The approximate quantities purchased by the principal buyers were:—

	Lbs.
Agents for the Mannheim and Amsterdam works ..	164,175
" Auerbach works ..	50,980
" Frankfort-o/Main and Stuttgart works ..	47,148
Messrs. Howards & Sons ..	18,214
Agents for the American and Italian works ..	12,655
" Brunswick works ..	8,940
Sundry druggists, &c. ..	24,160
Total quantity sold ..	326,272
Bought in or withdrawn ..	20,660
Total amount of bark offered ..	346,932

It should be remembered that the quantity of bark purchased affords no guide to the amount of quinine represented. The following prices were paid:—

CEYLON BARK—*Original*.—Red varieties: A very large quantity of chips was offered, of which ordinary woody to fair branch and stem realised from 1 $\frac{1}{2}$ d. to 2d.; good to fine bright quilly ditto, 2 $\frac{1}{2}$ d. to 3d.; fair bright spokeshavings, 3 $\frac{1}{2}$ d.; rather dusty root, 3d. per lb. Grey varieties: Ordinary dull to fair quilly stem and branch chips sold at 3d. to 6d.; common woody twigs at 2 $\frac{1}{2}$ d. to 2 $\frac{3}{4}$ d. per lb. Fair to good hybrid chips fetched 3d. to 4 $\frac{1}{4}$ d. per lb. *Renewed*.—Red

varieties: Very thin dull to fair bright quilly stem and branch chips, 1 $\frac{1}{2}$ d. to 3 $\frac{1}{4}$ d. per lb.; fair to good hybrid chips, 3d. to 5 $\frac{1}{2}$ d. per lb.

EAST INDIAN CINCHONA.—Red and yellow varieties were not offered. *Original*.—Thin to good quilly grey stem and branch chips brought from 1 $\frac{1}{2}$ d. to 4d.; chips and shavings mixed, 1 $\frac{1}{2}$ d. to 1 $\frac{3}{4}$ d.; dusty root, 3 $\frac{1}{2}$ d. per lb. *Renewed*.—Ordinary grey chips, 3d. to 3 $\frac{1}{4}$ d.; fine quilly ditto, 7 $\frac{1}{2}$ d. per lb.

JAVA BARK.—Thirty hales of direct import found buyers at 5 $\frac{1}{2}$ d. per lb. for fair Ledger chips, and 3 $\frac{1}{2}$ d. per lb. for crushed branch chips.

AFRICAN BARK.—A recent import of 244 bales St. Thomas bark, rather less mixed with damaged lots than usual, sold with fair competition at 3d. to 4d. per lb. for rather irregular and broken red quill. Another parcel of 33 packages realised 2 $\frac{1}{2}$ d. to 3 $\frac{1}{2}$ d. per lb. for sound, and from 1 $\frac{1}{4}$ d. to 4d. per lb. for more or less damaged bark.

SOUTH AMERICAN BARK.—Of 456 small bales of cultivated yellow bark from Bolivia, 200 sold at 5 $\frac{1}{2}$ d. to 5 $\frac{3}{4}$ d. for sound quill, brown to silvery, rather irregular and partly thin, and 8 $\frac{1}{2}$ d. for fine rich silvery, slightly damaged, stout quill.

CUMIN-SEED.—Good *Mogadore* has advanced to 23s. per cwt.—a price which is cheap as compared with the figures (40s. to 50s. per cwt.) asked for good to fine *Maltese* seed. The demand remains good.

ERGOT OF RYE.—We are told that the consignees of good new *Spanish* ergot require 3s. per lb., but might probably accept 2s. 10d. per lb., which is the lowest limit given them by the shippers in Vigo. *Russian* is quoted at 2s. 4d. per lb. on the spot.

GUM ARABIC.—During the month of September 115 serons of genuine Soudan sorts were sold in Liverpool at prices which gradually declined from 85s. to 75s. per cwt. for fair white soft. Business is also reported in bold pale *Senegal* gum at 65s., c.i.f. terms, to arrive. At to-day's London sales 3,500 packages were offered. A fair proportion was sold, but prices ranged lower all round, with the exception of *Ghatti* gum, which was very firm. *Soudan* sorts declined fully 2s. to 3s. per cwt., *Kurachee* 2s. 6d. to 5s., and soft *Cawnpore* 1s. to 2s. per cwt. The following were some of the prices obtained: *Soudan* sorts (of which 143 bales were offered), 67s. to 73s. per cwt. for amber and drossy mixed to fair pale. *Cape*: Good pale siftings, 40s.; common to fair ambery and dusty sorts, 29s. to 43s.; ordinary brown glassy sorts, 17s. to 20s. per cwt. *Brown Barbary*, 46s. per cwt. *Australian*: Common dark to fair reddish, 22s. to 27s. per cwt. *East Indian*:—Common to fair brown Amrad drop, 29s. to 31s.; fair to good bright Cawnpore, 31s. 6d. to 46s.; common red to fine amber Kurachee drop, 33s. 6d. to 54s.; red to soft pale ditto siftings, 23s. to 30s. 6d.; red olibanum-scented Aden, 30s.; common dark to fine pale Ghatti, 15s. 6d. to 45s. per cwt. *Senegal* gum is offering very cheaply now; good Bas-du-fluve may be had below 50s. per cwt.

IPECACUANHA.—One of the importers has sold the whole of his stock since the last auctions at some advance in price. Very little is now offering, and for good stout sound root 9s. 6d. per lb. is asked. There have been no arrivals since our last report. The stock on September 30 was 256 packages in 1892 (including nearly 100 packages Cartagena), 193 packages in 1891, and 280 packages in 1890. The following figures represent the annual imports and deliveries for the last eleven years, together with the stock left at the end of the year:—

Year	Imports	Deliveries	Stock, Dec. 31	Year	Imports	Deliveries	Stock, Dec. 31
1882	Bales 1,024	Bales 656	Bales 590	1888	Bales 512	Bales 724	Bales 10
1883	545	935	210	1889	1,101	947	208
1884	672	697	175	1890	1,349	1,176	251
1885	662	715	122	1891	1,297	1,133	279
1886	591	642	71	1892*			
1887	613	561	158				

* For the first nine months.

To-day 9s. 2d. to 9s. 3d. per lb. was actually paid for good sound *Rio* root; and from 6s. to 6s. 6d. per lb. for *Carthagena*, according to quality.

INSECT-FLOWERS.—Some of the importers say that prices in Trieste are from 2s. to 3s. per cwt. higher, others report a firm market, but no change in prices.

OILS (ESSENTIAL).—American oil of *Peppermint* still shows a declining tendency. HGH brand sold at 12s. 6d. per lb. a few days ago; but it is said that since then 12s. 3d. per lb. has been accepted. English oil of *Cloves* has been advanced 3d. per lb. in sympathy with the rise in Zanzibar cloves. The quotations are now from 2s. 5d. to 2s. 6d. per lb. for first, and 2s. 4d. per lb. for second quality. English *Caraway* oil may be had at 5s. 3d. to 5s. 6d. per lb. *Menthol crystals* are offering for distant shipment (February) at lower prices—viz., 9s. per lb.—but on the spot from 9s. 9d. to 10s. 6d. per lb. is wanted, according to quality. The fixing of the prices of the new oil of *lemon* in Italy is expected daily. Meanwhile prices keep firm, as also do those of *Bergamot*. There have also been modifications in the quotations of the following essential oils:—Oil of *Anise* is dearer, German being quoted at 7s. 9d., and Russian at 8s. 9d. per lb.; oil of *Chamomiles* has advanced to 75s. per lb. for fine English distilled, and to 8s. 6d. per oz. for oil distilled from German flowers; *Coriander* oil is now quoted at 25s. per lb.; oil of *Dill* at 9s. per lb.; oil of *Fennel* (German) at 4s. per lb.; all these being dearer. The demand for *Eucalyptus* oil continues, and we hear of considerable sales, though there has been no further advance in price. *Lemon-grass* oil is quiet at 1½d. per oz. on the spot; for arrival there are buyers at 1½d. "c.i.f." terms. *Star anise* oil has sold to arrive at 5s. 4d. per lb. c.i.f. and on the spot at 5s. 11d. per lb. For oil of *cassia* 2s. 9d. c.i.f. to arrive would be accepted. On the spot 3s. 3d. per lb. is still the quotation.

OPIUM.—The London market is firm, but not very active *Persian* opium is still held for 10s. 6d. per lb. for fine quality, while fine druggists' kinds are quoted at 7s. 6d. to 8s., and secondary varieties at 6s. 6d. to 7s. per lb., according to quality. Old crop *Malatia* opium is quoted at 8s. 6d. per lb. New *Salonica* is held for very high prices (about 10s. 6d. per lb.), and is, therefore, practically off the market at present. Our Smyrna correspondent writes as follows, under date of September 24:—"Our market has again been active this week, the sales consisting of over 100 cases new manufacturing, chiefly for America, from 6s. 3d. to 6s. 5d. per lb., f.o.b.; but to-day sellers are holding for more money, otherwise double this quantity would have been secured, as there are still many buyers who have not been able to operate. For the Dutch Government also opium is eagerly inquired for, the last price paid being equivalent to 7s. 2d., f.o.b.; but the quantity hitherto accepted as suitable for the purpose required does not exceed, so far as Smyrna is concerned, 100 cases, against the 600 sold to the Government by the Smyrna and Constantinople houses. No rain has as yet fallen in the Upper districts, therefore no progress can be made with the autumn sowings. The arrivals to date in this market are 2,730 baskets, against 2,180 at the same time of last year."

ORBS.—This is what we hear from Leghorn under date of October 1:—"The new crop is now beginning to arrive upon our market; prices are firm, but no business to speak of has yet been put through. The quality of the *Verona* root is unusually fine; that of *Florentine* does not appear to be particularly attractive."

QUICKSILVER.—The importers' price remains 6l. 7s. 6d. per bottle, while second-hand holders offer at 6l. 5s.

QUININE has been dull all the week, second-hand being quoted nominally at 9d. per oz.; but last night a strong excitement has suddenly made its appearance in the market, and with buyers coming in on all hands a very large quantity, estimated variously at between 100,000 and 200,000 oz., has changed hands at rising prices, from 9½d. to 9¾d. being paid on the spot (10d. being asked), 9½d. for December, from 9¾d. to 9¾d. for January, and 10d. for March delivery. The whole of this business has been done by second-hand holders, and there is no doubt that it is all of a speculative character. The agents do not quote any fixed prices at present.

SENEGA.—There are not many dealers who have any to

offer, and 2s. 9d. to 2s. 10d. per lb. is spoken of as the market value for good quality, but we do not think that it would be easy to sell at that figure. Some "inferior" root is being offered at 2s. 6d. per lb.

SENNA.—The arrivals remain small up to the present. By the *Peninsular* have come 252 bales of leaves and 25 bales of pods. The crop of *Tinnevely* leaves is now estimated at only half of an average yield, while the quality generally is reported to leave much to be desired.

SPICES.—After many months of stagnant trade and declining prices a sharp improvement has set in, and several of the leading kinds of spices are higher. This is notably the case with *cloves*, in which a large business has been done, while at auction 890 bales Zanzibar sold with strong competition at 2½d. to 3d. per lb. for dark to fair. *Chillies* are irregular, at 60s. to 70s. per cwt. for Zanzibar or Sierra Leone, according to quality. *Black pepper* is very firm, both on the spot and for delivery, and *white* is also dearer, at 4½d. per lb. for fair Penang, and 5¼d. to 7¾d. for fine to bold selected Singapore. *Pimento* has advanced to 2½d. to 3d. per lb. for fair to fine bold. *Ginger* is dearer for Jamaica, 56s. to 62s. for low to bright washed medium; Bengal sells at 30s., but Cochin is not so brisk of sale.

STROPHANTHUS.—The brown seed which is being offered at 9d. per lb. is of very ordinary wormy quality. Good *Hispidus* seed, though not in brisk demand, still brings about 2s. 10d. per lb. when wanted.

TEA.—The higher rates for tea have brought out large supplies of Assam, with easier prices all round, especially for commoner kinds. A large number of better teas were withdrawn in the heavy auctions of Monday and Wednesday, the biddings being below importers' ideas of values. Congous are unchanged, with a fair trade doing; and Capers are steady to firmer for good 7d. to 8d. sorts. The offerings of Ceylon tea for the week have been smaller than of late, and with good competition full prices have been obtained, especially for teas from 7d. to 9d., which show an advance in many cases of fully 2d. from the lowest point.

TURMERIC is selling at 17s. 6d. to 18s. per cwt. for *China*, and at 20s. per cwt. for *Bengal* finger.

VALERIAN-ROOT.—A little dearer; for Belgian from 32s. 6d. to 35s. according to quality, must now be paid, whilst French is held for 27s. 6d. to 30s.

VANILLA.—Reports from Mauritius, dated September 10, say that the crop is being cured, and that small parcels of it will soon be available.

WAX (JAPAN).—Very slow and lower again, 35s. to 36s. per cwt. having been accepted for good pale squares on the spot.

THE SMYRNA OPIUM MARKET.

(Telegram from our Correspondent.)

SMYRNA, Wednesday night.

THE Philadelphia chemical factory has been buying this week, and we have to report sales of 150 cases of usual current manufacturing opium (mostly to that firm) at the parity of 6s. 4d. per lb., f.o.b. Our market is active and well sustained.

THE NEW YORK MARKET.

(By Cable from our Correspondent.)

NEW YORK, October 6.

THERE has been a great deal of excitement in cascara sagrada, of which 10,000 lbs. have been sold at gradually advancing prices up to 10c. here. *Senega* root is also dearer, with business amounting altogether to 30,000 lbs. at prices closing at 55c. per lb. Balsam Canada has risen to 2c. per lb. for good new quality. On the other hand, there has been a serious fall in Mexican sarsaparilla, which is now offering at 8½c. per lb.



Memoranda for Correspondents.

Always send your proper name and address; we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Is Water-analysis a Failure?

SIR,—I do not know whether I am quite in order in criticising an editorial, but if I am there are several points in your "Is Water-analysis a Failure?" that call for plenty of discussion. The dictum of such authorities as Sir George Buchanan and Dr. Thresh must carry immense weight, but I think the suggestion that only the medical officers of health are to give opinions on water could hardly be seriously entertained. That a certain amount of medical knowledge must be brought to bear on special water-questions is certain; but in ordinary water-analysis a chemist who has had thorough experience in his work may, I maintain, pronounce a fairly definite opinion. What medical knowledge did Dr. Thresh bring to bear in his strictures on the water-supply of Writtle? I have carefully followed his analytical figures and the deductions he draws. Those deductions follow directly from the chemical analyses, and from no medical evidence. The fact that many samples contained, as Dr. Thresh puts it, "much oxidised sewage" is seen from the high amount of nitrates and chlorine, together with the large amount of organic matter, and its state of oxidation from entirely chemical data. Of course responsible authorities will generally trace a condemned water to the source of contamination, but how are they to suspect this contamination without a chemical analysis? For example, a sample of water was sent to a colleague of mine—water which was being drunk largely in the north of London. He condemned it at once on account of the high amount of ammonia, free and albuminoid, and chlorine. Moreover, he succeeded in extracting a small quantity of urea from it. He succeeded in closing the source of supply; but after a year or so the local authorities reopened it, and he had hard work to close it again. When at length the well was honestly examined, a urinal was found draining straight into it. What need of medical testimony in such a case is there? There is one more point I must mention, and that is that a water-analyst who has had any real experience in bacteriological work will not judge a water from the number of the organisms contained therein. We have repeatedly found that the Kent water, which is by far the purest water supplied to London, contains more organisms than that of any other company, and Dr. Washbourn, the well-known bacteriologist, has, he tells me, made substantially the same observation. I must apologise for taking up so much of your space, but such a question as your leader asks is of vast importance to water-analysts.

Yours, &c.,

ERNEST J. PARRY.

40 Craven Street, W.

Slake.

SIR,—I have had considerable dealing with the polishing fraternity, and my experience is that slake-varnish is not shellac and sandarac in spirit, but gum benzoin in spirit, in the proportion of 4 lbs. fair whitish pieces to 1 gallon spirit. The shellac and sandarac in spirit is what is termed French polish.

Yours truly,

Glasgow, October 1.

D. S. C. REID.

Nux Insana.

SIR,—I am very much obliged to Mr. Hooper for his interesting letter. His description of the fruit of *Hydnocarpus venenata* seems to tally with that of the *Pruna insana* of Clusius, and my query is therefore answered.

Whether this is Shakespeare's "insane root" or not is another question, and one of minor importance; but I do not see why Shakespeare must have meant a European plant. So far as I am aware there is no such plant bearing this name that he could have referred to with any show of reason. Henbane has been suggested, and Apuleius calls it *insana*, but who would "eat on" henbane? It is not a drug that we want, but something that is or may be mistaken for an edible fruit. What more likely than that such a fruit as this, so recently described in hooks accessible to him, should have occurred to Shakespeare as serving his purpose? All was fish that came to his net.

I am, &c.,

Epworth, Doncaster,

C. C. BELL.

October 1.

P.S.—There is one point, by the way, in which Mr. Hooper's description of the fruit differs from Gerard's. He says it contains "several oily seeds"; Gerard says "a membranous stone or kernel." Is there more than one?

The Label on a Poisonous Proprietary.

SIR,—Two points strike us in connection with the pattern poison-label on page 534:—

(1) What "law" forbids us to purchase a "poison" from any person who may be willing to sell it?

(2) Is the statement of the existence of an admitted legal obligation a fulfilment of such obligation?

Yours faithfully,

Sept. 30.

QUERULOUS QUESTIONERS. (127/45)

Non cutting Arrangements.

SIR,—In regard to this matter I quite agree with the views of "Country Chemist."

In my district I have not had the slightest demand or inquiry for the "Curative Compound," nor have I noticed any form of advertisement with a view to creating a demand.

The first thing is to make a demand for the preparation. It is idle to expect traders to "enthuse" about an article for which they have not a sale.

If Mr. Geddes is so solicitous about the interests of the chemists, why does he not try the non-cutting arrangements with regard to St. Jacobs Oil? There he would be on sure ground and have none of the difficulties which now appear to confront him. While many of the largest and most successful proprietors have steadily refused to make any move as to regulating retail prices, there are a few cases where it has been successfully done, and an effort to "protect us from ourselves," as it may be put, is in many districts required, and would be welcomed by numerous retailers.

Yours, &c.,

September 23.

IRISH CHEMIST. (126/44.)

SIR,—Reduced to plain speech, Mr. Geddes' case seems to stand thus:—"Let the chemist introduce and push my 'Compound,' and thus save me an enormous outlay in advertising, and he shall have a fair profit on what he sells—say, 20 per cent.—and I will supply him with the compound at, say, 60 per cent. profit to myself." Is it to be wondered at, or is he surprised to know, that chemists don't see the fun in it?

Yours truly,

HELP YOURSELF. (128/46.)

The Irish Council Election.

We have three letters as we go to press in reference to the recent election.

Mr. R. J. Downes maintains that the election proves that the pharmaceutical chemists have the confidence of the electors. There were, it appears, 140 good voting-papers from members. As the lowest pharmaceutical candidate on the poll scored 142, it is clear all must have received some associate votes. Mr. Downes also considers that the whole-

sale druggists have been plainly told that they are not wanted on the Council.

Mr. Arthur Reynor, member of the Society, Dublin, says that though he and others voted for Mr. McWalter's "recommendation," they did so because they thought he was technically correct, but Mr. Reynor is quite sure that as far as the examinership is concerned the right man is in the right place. He thinks it somewhat extraordinary that the Council should have themselves voted on what was practically a motion of censure on themselves.

Mr. B. J. Costello also thinks there was some illegality about the appointment of Mr. Robinson.

The Stamping of Proprietary Medicines.

A Southampton chemist, referring to Mr. Round's letter last week, says he had a somewhat similar communication from the Board in reference to an embrocation which he formerly stamped on the outside of the wrapper. He now, in accordance with the Board's orders, stamps it over the cork. But he says he has since noticed that recent arrivals of the following articles have been found to be stamped just as his was, viz.:—

2s. 9d. Liebig's Chemical Food.
4s. 6d. and 2s. 6d. Pepper's Quinine and Iron Tonic.
2s. 9d. Pepper's Taraxacum and Podophyllin.
Lalor's Phosphodyne.
Wild's Gout-mixture.
Pond's 1s. 1½d. Extract.
1s. 9d. Vinolia.
Orchard's Cure.

As every seller of articles inadequately stamped is liable to the penalty, this hint should be attended to by the makers of the goods named.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Mag. Sulph. and Bicarbonates.

SIR,—Please state how the following can be dispensed without a deposit or without crystals being formed:—

Potass. bicarb.	..	..	..	..	..	5iv.
Magnes. sulph.	..	..	..	..	..	5iv.
Sodæ bicarb.	..	..	..	..	..	5ij.
Spt. ether. chlor.	..	..	..	..	..	5iij.
Aqua ad	..	..	..	..	..	3viij.

M.

SENEX. (118/38.)

[When the mag. sulph. is dissolved in 2 oz. of water, the bicarbonates in the remainder, the latter poured into the former, mixed, and the spirit added, the mixture is perfectly clear. In the course of a few hours crystallisation begins, and proceeds steadily until the whole of the magnesia appears to come. The crystals are magnesium carbonate, and their formation cannot be prevented.]

A Double Query.

SIR,—I shall be glad to know how your numerous correspondents would dispense the following, received from an eminent physician:—

Pil. asafetidae co.	..	..	..	..	gr. iv.
Ext. lactuce	..	..	..	..	gr. iss.
Tr. opii	..	..	..	..	ij.
Tr. gentiane	..	..	..	..	ij.
M. Ft. pil. ij.					
Sp. ammon. arom.	..	..	..	..	3j.
Quinine sulphat.	..	..	..	..	gr. iij.
Tr. lavand. co.	..	..	..	..	3ij.
Aq. camph.	..	..	..	..	3ij.

M.

Yours truly,

P. J. (121/16)

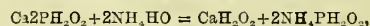
[Use the dry ingredients for the asafetida pill and evaporate the tinctures by a gentle heat to extract consistency

then mass. In the case of the quinine mixture rub the quinine sulphate to powder and mix with 5ss. of acacia mucilage. Mix the spirit and tincture with the rest of the water, and add to the quinine.]

Calcium Salts and Hydrates.

SIR,—I should be greatly obliged if you would give information as to the cause of the cloudiness when preparations of chloroform (either spirit or water) are mixed with camphor-water.

Also why a precipitate of CaH_2O_2 is not formed in the following mixture according to the equation:—



whereas with ammon. carb. a precipitate is immediately formed of carbonate of lime:—

Liq. ammon.	..	..	..	..	..	℥x.
Eth. chlor.	..	..	..	..	..	℥x.
Tr. limonis	..	..	..	..	..	℥x.
Calc. hypophos.	..	..	..	..	..	gr. v.
Aq. camph.	..	..	..	..	..	3ss.

The precipitation of camphor (?) is considerable.

A JUNIOR. (123/47.)

[We have failed in obtaining a camphor precipitate under the conditions stated; we attribute it in the case of the mixture to the salt present. Calcium salts are not affected by ammonium hydrate, nor by sodium and potassium hydrate unless in very strong solution. The hypophosphite behaves like the chloride. Apparently calcium has greater affinity for the acid radicle than for hydroxyl.]

Another Quinine Mixture.

SIR,—Can the following be made into a presentable mixture or dispensed without a precipitate sticking to the sides of the bottle?—

Quin. disulph.	..	..	..	..	gr. xx.
Sod. salicylat.	..	..	..	..	5j.
Ac. citric.	..	..	..	..	gr. xx.
Tr. aurant.	..	..	..	..	3vj.
Aq. ad	..	..	..	..	3vj.

Ft. mist.

½ in water night and morning.

I followed "Art of Dispensing" and several ways, but could not make a satisfactory mixture.

CODEx. (121/5.)

[The mixture is a thoroughly bad one. The quinine salt reacts with the salicylate, and the citric acid precipitates salicylic acid, which with the insoluble alkaloidal salicylate gives the trouble. If the citric acid is omitted and the quinine simply rubbed up with water a fairly presentable mixture is obtained.]

How Can this be Done?

SIR,—I have had to make as under:—

Ext. abietis nig. iuspiss.	..	..	..	..	5ij.
Mag. carb.	..	..	..	..	q.s.
M. Ft. pil. xx.					

Beat as much as you like of mag. carb. into the extract, in a few days they lose their pilular form.

INSPISS. (119/71.)

The Spanish Prescription.

SIR,—I was pleased to see a translation of the above from a correspondent in Uruguay. It shows what a far-reaching influence your journal exerts.

The prescription, as you say, proved a puzzle to your English readers, and even now, after a solution from a Spanish quarter, the mystery is not cleared up, for if dispensed according to "E. E. C." the result is a black jelly, whereas the patient said he had had it made up as a reddish liquid. You may remember I made two attempts at

deciphering the hieroglyphics. In my second guess I stated the ingredients as follows:—

Extracto fluido de quina	Fluid extract of cinchona
Tintura de canela	Tincture of cinnamon
Vino rojo	Red wine
Agua pura	Pure water
Percloruro de hierro	Perchloride of iron (solution)

As this would have made a black mixture, I suggested that the first dispenser had read "mercurio" for "hierro."

I was probably wrong in reading "fluido" for "blando" (soft) in the first line, but the original dispenser appears to have agreed with me in the third and fourth lines. What were the prescriber's real intentions?

Yours truly,
C. S. ASHTON.

123/6. *W. H. Turner*.—We cannot make out the third item of your prescription. The others are:—Acid. phenic., cocain. hyd., tinct. hamamelid., and aq. puræ.

MISCELLANEOUS INQUIRIES.

Inquirers will please read the "Memoranda for Correspondents."

A list of "Books for Chemists" is given in THE CHEMIST'S AND DRUGGISTS' DIARY, p. 317.

For all particulars regarding Educational and Examinational matters refer to our issue of September 17, 1892.

Replies to queries are inserted according to the space open in any week, and insertion on any specific date cannot be guaranteed.

Back numbers of our weekly issue, containing formulæ, &c., occasionally referred to in answers, can be obtained from the Publisher at 6d. each.

118/71. *Diamond*.—See reply to "Frank," last week.

118.56. *Mag. Cit.*—(1) One per cent. of carbolic acid is the average quantity added to dentitrices. You will find 10 grains of absolute acid to 1 oz. is a quantity not very agreeable, and difficult to cover. (2) As the strength of Liquor Morphine Hydrochlor. B.P. is 1 grain in 96 fluid grains, you will require to take 105 minims in order to get 1 grain of the morphine salt. (3) In cases of Poisoning with Paraffin the emetic should be followed by a stimulant (black coffee with a dash of brandy in it), then the dose of castor oil and laudanum.

119/57. *Ignoramus*.—Coffee-stains, like most vegetable colour stains, can be removed from linen with chlorinated-lime solution.

119/14. *B. H. B.*—Such houses as Maw's can supply you with a skeleton. You should consult the "Science Directory" in regard to loans of apparatus, &c., for science lectures.

119/68. *Benzoin* has not complied with our rules.

119/32. *X. Y. Z.*—You may improve the Smoke-flavoured Honey by clarification, but it is risky to "doctor" honey in any way.

119/69. *Subscriber (Leicester)*.—For Ginger ale Essence see our issues of March 5, 1892, page 355, and March 19, page 432.

119/18. *W. Bowe*.—There are two varieties of Erasmus Wilson's Hair lotion, one with oil of almonds and ammonia, and one without. The former is commonly used, the latter rarely. See THE CHEMIST AND DRUGGIST, May 2, 1891, page 633, and February 6, 1892, page 216.

103/33. *Phosphate* wishes to know if Liquor Ferri Magnetic Phosph. Conc. (Lightfoot) is a proprietary article.

Our information is that it is, and that the formula has not been published. Does anyone know to the contrary?

111/9. *Angelus*.—Glycerine and Cucumber.—We have obtained very satisfactory results with the following formula:—

Warrick's jasmine pomade..	..	..	3iiss.
Powdered white Castile soap	..	..	5v.
" borax	..	..	9ij.
Otto of rose	..	..	℥xxx.
Oil of lemongrass	..	..	℥iv.
Rectified spirit	..	..	3iv.
Glycerine	..	..	3viij.
Water	..	..	3xxv.

Mix the first three ingredients in a mortar dissolve the essential oils in the spirit, and add to the glycerine and water previously mixed. Now emulsify the fatty mixture with this solution by adding it gradually and with constant stirring.

111/69. *H. T. (Transvaal)*.—(1) Old-fashioned Ginger-beer is a thing that cannot be hastened much in the making, since it is the yeast-cells that do the work. But we imagine that in the heat of the Transvaal the sooner you complete the process the better. To begin with, the yeast must be fresh "brewer's barm," and thoroughly active, and the proportions of ingredients are as follows:—

Honey	..	..	..	..	3ij.
Sugar	..	..	..	..	1 lb.
Strong tincture of ginger	..	..	..	..	3j.
Tincture of lemon-peel	..	..	..	..	3j.
Yeast..	..	..	..	..	3ij.
Warm water	..	..	..	..	Cong. j.

Dissolve the honey and sugar in the water, and add the tinctures when the solution has cooled to about 70° F. Then pour in the yeast with a few pieces of dry toast, and set aside to ferment for at least a day; add 3 drachms of cream of tartar dissolved in a few ounces of the brew. Strain and bottle.

We think you will find the product satisfactory, especially in regard to flavour, and you may expedite fermentation by decreasing the amount of sugar, and letting honey take its place. Much, of course, depends upon the temperature you work at. (2) We are communicating with your London agents.

120/34. *T. J. (Birmingham)*.—Treatment of Eczema.—We cannot advise in any special case; but see the following notes in THE CHEMIST AND DRUGGIST:—January 30, 1892, page 136; May 28, 1892, page 767; August 8, 1891, page 222; and in many previous volumes. You should use only such a soap as Eichhoff's ichthyol and tar soap.

120/18. *Apprentice*.—(1) In the B.P. Opium Assay, you take 140 grains of opium and 1,400 fluid grains of water, but only use 1,000 fluid grains of the saturated liquor; obviously, that is the equivalent of 100 grains of the drug. (2) You will get a cheap set of volumetric apparatus from Messrs. H. Poths & Co., who put up a set packed in a box. (3) Yes; you should try the "Corner for Students" again. We like to see young men work up from the bottom to the top.

121/33. *Thistle* has a lady customer who gets and uses 4 oz. of 1-in-12 Hypodermic Solution of Morphine every fortnight. He uses neutral tartrate of morphine, but every bottle sent gives trouble towards the end, becoming acid and brown. This can be avoided by boiling the distilled water with which the solution is made. "Thistle" should proceed as follows:—Boil 6 oz. of distilled water and pour into a dry 10-oz. stoppered bottle, which has been heated thoroughly in an oven and is still hot; close the bottle, and when the contents are cold add 5 drops of chloroform; shake until dissolved. To make the injection, put 160 grains of morphine tartrate in a 6-oz. dry, stoppered bottle, recently heated in an oven, and add 4 oz. of the sterilised chloroform-water; shake until dissolved, and send out in 1-oz. bottles which have been sterilised by heating. The corks should also be boiled in water. The morphia

may be recovered from the old solutions by precipitation with ammonia, and conversion into the hydrochlorate; but the simpler plan would be to sell it to the manufacturer who supplied the tartrate.

121/52. *Wilts.*—The tragacanth paste (THE CHEMIST AND DRUGGIST June 11, 1892, page 852) is suitable for sticking Labels on Parchment Paper.

122/66. *Shaheen.*—The process for Silvering Mirrors which is usually followed is to lay the glass, after it has been thoroughly cleaned, on a perfectly flat surface, cover it with tinfoil, and rub mercury over it with a hare's foot. Of course you may not succeed at first, just as you would not expect a mirror-maker to succeed at emulsion-making straight away.

122/31. *Jean.*—On referring to the American patents for a Self-inking Pad, we find that the inventor claims for an ordinary ink-pad, but preferably with two layers of woven material or felt, the lower one being softer than the upper. The lower cloth is to be saturated with any ordinary ink or colouring-matter, and the upper with a solution of alum in glycerine.

123/58. *Lapis Divinus.*—We are not aware of any means for freshening rancid butter.

124/39. *Desiderata.*—"Scientific Mysteries" should assist you. See also THE CHEMIST AND DRUGGIST, vol. xxxv. page 256 *et seq.*, for outlines of lectures.

119/4. *W. R. Craig.*—Glycerine Jelly.—See THE CHEMIST AND DRUGGIST, December 12, 1891, page 861.

125/24. *Nemo.*—We cannot tell whether your sample of *pluv. jalapæ* is pure or not, because we do not undertake work of that kind for subscribers.

125/27. *Tempus Fugit.*—We have not the formula.

124/16. *H. S.*—We cannot assist you in the matter. See the rules which head this section.

117/19. *Oxon.*—(1) *Liquor Opii Sedativus*—See THE CHEMIST AND DRUGGIST, February 28, 1891, page 321. (2) *Pine Perfume*:—

<i>Olei pini sylvestris</i>	..	..	..	3i ss.
" <i>juniperi</i>	..	..	..	3i ss.
" <i>rosmarini</i>	..	..	..	℥lxxx.
" <i>lavandulæ</i>	..	..	..	℥xliv.
" <i>limonis</i>	..	..	..	3ss.
<i>Spt. rectificat. ad</i>	..	..	..	℥ij.

M.

101/59. *Chaulmoogra* sends a sample of Lotion for Broken Knees. He says:—"The recipe comes from a cavalry officer, and is put up by a groom. It is spoken highly of by horsemen, who use it in cases of broken knees, wounds resulting from accident, &c., and is said to heal slowly, closing the wound, and leaving but seldom a mark." On analysing it we make out the formula to be somewhat as follows:—

<i>Cupri sulph.</i>	..	..	..	3i.
<i>Plumbi acet.</i>	..	..	..	9j.
<i>Spt. camph.</i>	..	..	..	3i.
<i>Aq. ad</i>	..	..	..	3x.

Dissolve the salts separately in water; mix, and add the spirit of camphor

123/17. *Carduus*—(1) The list of Stock for a New Shop is printed in our DIARY for 1890. (2) We have formulae for the preparations in type, ready to put in when space is available.

125/15. *Phosphate.*—Manufacture of Aloin.—Tilden's method is as follows:—Select a specimen of Barbadoes aloes, the most powerfully odorous that can be procured, bright-looking, and not the most waxy; break it up, and dissolve it in a quantity of boiling distilled water to which a few drops of sulphuric, sulphurous, or hydrochloric acid have been added. The proportions may be 1 lb. of aloes to 1 gallon of water. Let the liquid stand all night to deposit resin, then pour it off and evaporate quickly to double the weight of the aloes employed. Set aside for twenty-four hours to crystallise. Collect the crystals, and purify by recrystallisation twice from water. This process worked well fifteen years ago, and the only reason why it should not now is that the aloes has undergone some change. It is an advantage to allow crystallisation to proceed for a week rather than a day.

118/52. *Tooth-paste.*—(1) A Tooth-paste similar to what you mention may be made according to the following formula:—

Precipitated chalk	..	..	..	3xvj.
Rose pink	..	..	..	3vj.
Powdered areca-nut	..	..	..	3iij.
Sugar	..	..	..	3iij.
Oil of cloves	..	..	..	℥xxv.
Oil of cinnamon	..	..	..	℥xxv.
Rose-water	..	..	..	a sufficiency
Glycerine	..	..	..	"

Mix the powders intimately with the essential oils, and make into a stiff paste with the glycerine and water mixture.

(2) The poison laws in Germany and France are much more restrictive than in this country. In the United States similar regulations exist as in Great Britain, and the same applies to Canada. See this volume, page 238.

163/29. *Newcastle* asks if the following directions may be used for B.P. Chlorodyne:—

Doses for adults only.

	Drops
In coughs, colds, influenza, agues, &c.	5 to 15
In consumption, asthma, bronchitis, spasm, &c.	10 to 25
Cholera, dysentery, diarrhoea, colics, &c.	15 to 30

We think the doses are quite safe, but it is well to bear in mind that should anything untoward happen (as is quite likely in bronchitis cases) counteraction for not sticking to the B.P. is almost certain to follow. We should omit "asthma" and "bronchitis," and add the following caution:—

The smaller doses should be taken in a tablespoonful of tepid water, not oftener than every four hours. The larger doses should in no circumstance be exceeded, or repeated within four hours.

122/63. *Inquirer.*—The effervescence on mixing glycerine with borax and sodium bicarbonate is due to liberation of carbonic-acid gas. See report of American Pharmaceutical Association in our issue of August 6, and article on American pharmacy the week following.

123/40. *Ergot.*—(1) Solution of Chloride of Lime is not usually bottled and sold for disinfection, but for bleaching. Chloride-of-zinc solution is used for the former purpose. You may follow the B.P. in regard to the lime. (2) We have already published a formula for a Linseed Compound for Coughs. See THE CHEMIST AND DRUGGIST, September 4, 1886, page 323, and December 21, 1889, page 877.

126/62. *Inquirer* (Ballymena) asks us what should be added to a strained infusion of Hops for Baking Purposes in order to make bread rise well. We take it that the hop infusion is not to make the bread rise, but the something else should. Carbamate of ammonia is the simplest thing.

126/29. *Chamomile.*—See the list of books in the DIARY.



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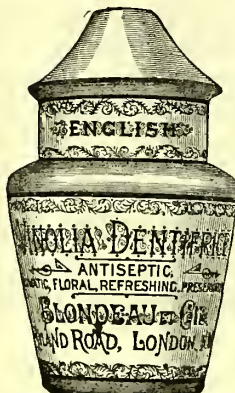
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WILCOX & CO. will deliver Free, to any Station in London, an original 6-doz. case of **VIN MARIANI** upon receipt of **REMITTANCE FOR £9 : 15 : 0 NET.** Wilcox & Co. will also give a Written Guarantee to **RETURN MONEY FOR THOSE UNSOLD** 12 months from date of purchase.

RETAIL PRICE 4/- PER BOTTLE, OR 45/- PER DOZEN.

HUNYADI JÁNOS.

Wilcox & Co. beg to notify that their future importations of "Hunyadi János" Water will be in $\frac{3}{4}$ size bottles; these bottles hold 25 per cent. less than the large bottles, and have the following great advantages:—

1. The public obtains in proportion more for the money, which invariably gives satisfaction.
2. Sold to the public at the popular price of "One Shilling," this $\frac{3}{4}$ size bottle yields to the retailer a 50-per-cent. net profit upon his outlay.

They further beg to notify that:—

1. The Hunyadi János Water imported by them and that imported by the Apollinaris Co. are identical—a fact easily proved by analysis.
2. That the Court of Appeal of the Supreme Court of Judicature, consisting of Justices Lindley, Bowen, and Fry, in re "Apollinaris Co. Trade Marks," justified the right of anyone in Great Britain to import and sell Hunyadi János Water in spite of any caution or notice to the contrary issued by the Proprietor, Andreas Saxlehner.

Contracts made for the creation of a monopoly, being illegal, are void, and are therefore not entitled to any legal protection.

By importing in very large quantities for cash they are enabled to offer these $\frac{3}{4}$ size bottles at the following prices for remittance with order:—

50 Bottles at	34/- net.
25 "	17/- "
Lots of 250 "	5 per cent. discount.

**PACKING FREE,
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Importers—WILCOX & CO., 239 OXFORD ST., LONDON.

WYLEYS LIMITED,

Manufacturing & Analytical Chemists,
WHOLESALE & EXPORT DRUGGISTS,
COVENTRY.

Warehouses, Laboratories, and Drug Mills, COVENTRY.

BRANCH HOUSE: 52 MOOR STREET, BIRMINGHAM.

MANUFACTURERS OF

PHARMACEUTICAL PREPARATIONS & SPECIALITIES,

PEARL & GELATINE COATED PILLS,

Compressed Pellets, Sugar-coated Pellets, Hypodermic Pellets & Cases

STANDARDIZED, CONCENTRATED, AND GLYCERINE TINCTURES,

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PATENT DURAPLASTIC COATED HORSE BALLS.

IMPORTERS OF FINE ESSENTIAL OILS.

New Drugs and Synthetic Remedies.

SPECIAL ATTENTION GIVEN TO SETTING-UP ORDERS.

WE SUPPLY ALL REQUISITES—DRUGS, PATENTS, & SUNDRIES.

COMPLETE PRICE LIST ON APPLICATION.

T. & H. SMITH & CO.,

EDINBURGH AND LONDON,

Are the ONLY MANUFACTURERS of the

SALTS OF MORPHIA

To whom, at the UNIVERSAL EXHIBITION, in PARIS, 1878, the
GOLD MEDAL WAS AWARDED.

NEW YORK Office—20 Cedar Street: DILLON & CO., Agents.

[2]

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Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on application.
DEALERS IN PURE CHEMICALS for Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor,
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Essence of Lemon and Berga-
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Essential Oils; Valentia Saf-
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Carmine, Aniline Dyes; Bees'
Wax, &c., &c.

MANUFACTURERS of Very Superior Flexible Gelatine Capsules of Balsam Copaiba, Cascara Sagrada, Castor Oil, Cod-liver Oil, Santal Oil, &c. Samples and Lowest Quotations per 1,000, or in Boxes for Retail, will be sent on application for either the Wholesale or Retail Trade.

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DRUGGISTS,

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FIELD'S SELECT PREPARATIONS

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Saline.

Liquid Extracts.

Glycerine and

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Concentrated

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Liq. Eucalypti et Cascaræ Sagradæ Co.

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FOSSIL MEAL,

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INFUSORIAL EARTH

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RAW, CALCINATED, AND WASHED, the
PUREST OFFERED, as every parcel is
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METHYLENE

Obtained by the action of Metallic Zinc on
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Discovered to be a general Anæsthetic by Dr.
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Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER,

For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

OZONIC ETHER,

In 2-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and 12s.

PEROXIDE OF HYDROGEN,

First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE OF SODIUM

(Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 1-oz. & 1-oz.
Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. & 4s.

STYPTIC COLLOID,

For promoting the Healing of Wounds, by the first intention.
In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d.
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CHARCOAL CAPSULES,

Containing Pure Vegetable Ivory
Charcoal.
In Boxes, 2s. 6d. each.

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WHY STRAIN AT A GNAT

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MANY SIZES LARGER THAN IS REALLY NECESSARY?

**RICHARDSON'S
FLEXIBLE
CAPSULES**

Are spoken of by THE CHEMIST AND DRUGGIST as
"beautiful products."

SEND FOR SAMPLES AND QUOTATIONS.

JOHN RICHARDSON & CO., LEICESTER, L^{TD}.

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PROVISIONAL PATENT, No. 1111.

A1 "ROLLER" MENTHOL.

The most sensible pattern yet brought out, as it won't break! 3/6 dozen carded.

The Chemist and Druggist says:—"Messrs. Shirley claim that it is so strong that if accidentally dropped it does not break—an assertion of which we have proved the correctness by repeatedly dropping the cone upon the floor from a height of 6 or 7 feet. The cone shape, in which Menthol is generally made, easily breaks, and much of it is therefore wasted, whereas the rolling-pin shape may be used right up to centre."

Above evidence is sufficient to show this is the best shape yet brought out.

No.	Description	Doz.	No.	Description	Doz.
No. 107F.	Good 3d. Pedestal, 1 doz. on a card	1/10	No. 8P.	6d. Boxwood, Acorn shape	3/3
No. 109.	" 4d. " 1 doz. in box	2/6	No. 111	—1s. " "	5/-
No. 117.	Monster 6d., 1 doz. in box	3/3	No. 40.	—6d. " Watch shape	3/3
No. 113R	—Reversible Boxwood, 1 doz. in box	3/6	No. 17F.	—1s. " Flat	5/-
No. 113P.	—Printed Skittle, 1 doz. in box	3/6	No. 9CR.	—1s. " Reversible	4/6

1d. Lines, 6/- and 6/6 per gross. 2d. Barrel or Pedestal, 14/- per gross.

£2 Parcels, assorted. Charming China Figure of "Justice" given away to assist Sale. Pretty little Glass Snow Case given away with 15/- order.

CORN SOLVENT,

in Actinic Bottles, fitted with Boxwood Cork and Brush, carded, 2/6 per dozen. Bottle, Cork, and Brush, empty, 1/- per dozen.



SOOTHING TEATS.

1d. Line, 3 doz. on card	7/6 gross.	3d., 1 doz. on card, bone mount	1/10 dozen.
2d. " "	14/- "	4d., " "	2/4 "
3d. Bone " "	17/- "	6d., " "	3/6 "
3d. Rubber " "	17/- "	6d., Vegetable Ivory Whistle and Ring	3/9 "
3d. 'Adapted' "	2/- dozen.	6d., 'Fascinators' "	3/6 "
6d., 'Adapted' "		6d., 'Adapted,' with Bone and Rubber parts	3/9 "

6d., 'Adapted'.

SMELLING BOTTLES, &c. 23s. Worth for 20s. SPECIAL BARGAINS.



No. 324.

No. 324.	This is a Watch shape, containing in gold-glass exact facsimile of Jubilee Sovereign	3/9 dozen.
No. 309	—Charming Line, hand-painted glasses and camoes in face	3/9 "
No. 348	—Flask shape, assorted colours, metal screw cap	16/- gross.
	filled	21/- "
No. 313.	—Globe shape, with two stoppers, quite air-tight, very prettily cut	12/6 dozen.
No. 330.	—Large wide-mouth bottles, assorted colours, globe stoppers, for Lavender Salts, wonderful value	3/6 "
No. 331.	—China Globe, wide mouth, for Salts, assorted decorations, colours, and gilt	4/- "
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English-made Bottles in variety. Special Lists on Application. £1 Assortment sent.

SMELLING BOTTLES IN PURSES, 4/-, 7/-, 8/- doz.; also with Chatelaine attached, 10/6 doz.

A1 TOOTH SOAP, on Easel Card, 3/6 doz. Very attractively got up.

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TURNERY.

Capital Lines from 2/3 doz. upwards. Also TURNED WOOD BOXES of every description. Fancy covered 3-inch Puff Box, 3/9 and 4/- doz.; 4-inch, 7/.

REALLY CHARMING GOODS.

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SPRAYS. 6d., 4/- doz; 1s., 8/- doz.; other sizes, 13/-, 17/-, 28/-, &c. PUMPS from 18/- upwards.

ETIENNE FRÈRES' PERFUMES.

1d. Tubes	8/ gross.	6d. 1/2 oz. Lundborg's	3/6 doz.
2d. Bottles	14/ "	1s. Lundborg's stoppered, 1 oz.	8/ "
3d. Sprinklers	2/ doz.	2 oz. " "	13/ "
		4 oz. " "	24/ "
		1 oz. Fancy Bottles...	8/ "
		1 oz. Heavy Essence, cut stopper...	8/ "
6d. Ring Bottles, stoppered	4/ doz.	1d. Eau de Cologne	8/ gross.
6d. 1/2 oz. Essences, sprinkler	3/9 "	3d. Eau de Cologne	1/10 doz.
6d. 1/2 oz. " capped	3/6 "		

(All above carded)

ARTHUR W. SHIRLEY, 55 Farringdon Road, LONDON, E.C.

One thing at a time, Gentlemen.



This week we ask every Chemist who keeps Guy's Tonic in stock to do us a favour. We hold a large number of letters from patients who, through taking Guy's Tonic, have derived speedy benefit and permanent cure from obstinate Indigestion, Sluggish Liver, and Nervousness. One of the most impressive letters ever received by us was forwarded on by the courtesy of a firm of Chemists in the Midlands from one of their customers who had been quickly restored to perfect health. We wish to add to our Book of Evidence as to the merits of our medicine, and we invite our kind supporters to advise us if they have heard of similar successes. If you will add your own opinion as to the curative value and saleability of Guy's Tonic, we shall be very grateful for your interest.

GUY'S TONIC COMPANY, 4 Ludgate Circus, London, E.C.

CRUSHED LINSEED.

EYRE & CO., MANUFACTURERS, 6 HIGH STREET, HULL.

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SEQUAH'S PRAIRIE FLOWER, SEQUAH'S OIL, AND SEQUAH'S INSTANT RELIEF

Always give satisfaction.

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SPECIAL NOTICE.—At the request of a large number of the Retail Trade, who are desirous of obtaining small quantities of our Goods at the lowest possible prices, we beg to inform the Trade that we have decided to supply the Goods in dozen lots, carriage paid, at our lowest terms—viz., 18/6 per dozen, Cash with Order. This offer holds good for the Home Trade only.

TRADE MARK.



"SEQUAH INDIAN
PRAIRIE FLOWER."

REGISTERED.

CHEST AND LUNG PROTECTORS.



Fig. 97.

	No. 1	2	3	4	5	6
Scarlet—						
Double..... per doz.	14/-	18/-	22/-	27/-	36/-	44/-
Single	6/-	8/-	9/6	11/6	15/6	24/6
The "Winter"						
Fig. 97. Vest Shape, ..	18/-	24/-	30/-	36/-	42/-	55/-
Natural Grey Fur-Felt (Solport's).						
Double..... per doz.	15/-	23/-	25/6	34/-	42/6	52/-
Single	6/6	9/-	12/-	15/6	20/-	25/-

NATURAL GREY FUR-FELT CHEST PROTECTORS.

These are made from a specially-manufactured felt, the material of which is pure, soft, undyed Lamb's Wool—to which is added the Fur of the Grey Coney.

They present several advantages.
They are very comfortable to wear, being soft, smooth, and warm.
They allow free circulation for the air.
They are undyed, so cannot irritate the most sensitive skin.

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ESTABLISHED 1746.

BARCLAY & SONS, LIMITED.

SEAMLESS ENEMAS.

RELIABLE QUALITY.

BEST ENAMELLED (Black only).

In Oval Cloth Boxes, complete, per doz. .. 33/-
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BLACK SEAMLESS SHAPE

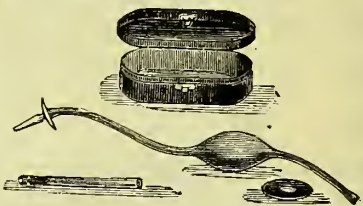
(Not Enamelled).

In Cedar Boxes, complete, per doz. .. 24/-

"HYGIENIC" ENEMAS

(Black), with Flexible Pipe.

In Oval Cloth Box, per doz. .. 30/-



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C. F. BOEHRINGER & SOEHNE,

WALDHOF, NEAR MANNHEIM,

MANUFACTURERS OF

SULPHATE OF QUININE, B. and S. Brand, and all other
Cinchona preparations, also of ACETANILID, CAFFEINE,
COCAINE, GALLIC ACID, GLYCERINE, SALICYLIC ACID
and SALICYLATES, STRYCHNINE, &c.

STOCKS KEPT IN LONDON, GLASGOW, AND DUBLIN.

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PRICE LIST FREE ON APPLICATION.

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52 ST. ANNE STREET, LIVERPOOL.

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Mills and Laboratories—WAKEFIELD STREET.

BITUMINOL, or VASELINE SUBSTITUTE.

/7 LB. SECOND, /4½ LB. CWT, 60/-, 38/-, IN TINS 7 AND 14 LBS. (TINS FREE).

Manufacturers of all descriptions of

PHARMACEUTICAL PREPARATIONS, COATED TASTELESS PILLS.

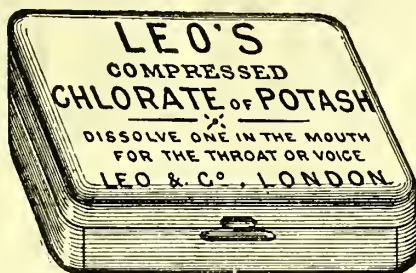
POWDERS GROUND IN OWN MILLS. PURITY GUARANTEED.

Samples free on application. Special Quotation to Cash or Large Buyers. Monthly Priced List forwarded on receipt of business card.

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Ammon. Brom.
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LEO'S.



They are
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Wholesale
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Voice (Potass. Chlor.,
Borax and Cocaine)

COMPRESSED CHLORATE of POTASH. CHLORATE OF POTASH & BORAX.

Quotations given for large and small quantities.

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BOOT'S, LIMITED, DISPENSING AND FAMILY CHEMISTS, PATENT MEDICINE VENDORS & DEALERS IN MEDICINAL WATERS,

Having some twenty branches in NOTTINGHAM, SHEFFIELD, LINCOLN, DERBY, GRIMSBY, ILKESTON, GRANTHAM, and BURTON-ON-TRENT, have exceptional opportunities of bringing Proprietary Articles before the public, and they will be glad to take up special agencies for articles of sterling merit where the proprietors are willing to meet their effort to make a push of the same. Careful supervision of the distribution of advertising matter will be undertaken
Correspondence invited.

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SALICYLATES

MANUFACTURED UNDER KOLBE'S PROCESS BY

J. HAUFF, FEUERBACH - STUTTGART.

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Embracing the Therapeutic Properties of the COCA Plant, blended with the best Madeira.

COCA FOR TROUBLESOME THROATS.

VINACOCA is a direct stimulant of the most active kind, supporting life in a manner almost miraculous, without disturbance of the vital functions. For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal cords is surprising, and of great value to Public Speakers, Professional and other Singers, and Lecturers.

The VINACOCA is carefully prepared from the best Coca Leaf only. (No addition of Cocaine.)

ONLY ONE WINE (CHOICE MADEIRA)
ONE QUALITY (A 1)
ONE PRICE } **THE BEST & CHEAPEST ON THE MARKET.**

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail. Usual Trade Discount.

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COCA is prepared in various forms: COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA, COCA CHOCOLATE, STAMIN (Coca and Beef Extract), COCA TOBACCO, &c.

MENTHOLIN (PATRONISED BY ROYALTY) PREVENTS INFLUENZA.

Is a Perfect Remedy for Coriza or Cold in the Head. Highest opinions from Public and Press.

Retail Price, 1s. 1½d. per Box.

FULL PARTICULARS FROM

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Obtained
First Award
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DISTILLERS OF ABSOLUTELY PURE

OIL OF EUCALYPTUS GLOBULUS

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From the leaves of the Eucalyptus Globulus or Native "Blue Gum" Tree of Tasmania. Pure, fragrant, and of highest medicinal value.

Prepared at the Company's Tasmanian Factories.

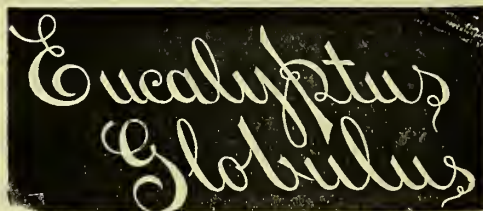
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Telegraphic Address—"Eucalyptus London."

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The undersigned call the attention of Medical Men and Pharmacists to the superior nature of their

Pure Oil of Eucalyptus Globulus,

distilled by them from leaves of Blue Gum trees cultivated in California. It should be noted that the reputation of Eucalyptus Oil is solely based upon the virtues of the Globulus variety; but very little of this now comes into the market from Australia, because it can only be produced there at from 15s. to 20s. per lb.

The DOWNIE B. I. P. CO. have extensive forests of Blue Gum trees in California, grown from Australian E. GLOBULUS seeds. The leaves of these trees are used for manufacturing an aqueous extract, as a boiler-incrustation preventive, and the company have lately perfected the means for collecting the Essential Oil. This Oil is of great purity, is unmixed with kindred bodies, and contains the full percentage of Eucalyptol. Since it is obtained as a by-product, the manufacturers place it on the market at a price which in other circumstances would be impossible.

Please specify "DOWNIE'S" in ordering through any Wholesale House, as there are many adulterated and worthless varieties in the market.

DOWNIE B. I. P. CO.

4 REDCROSS STREET, LIVERPOOL; and
204 MARKET ST., SAN FRANCISCO.

LOFODEN COD LIVER OIL COMPANY.

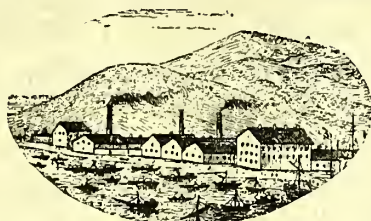
"NORTH STAR" BRAND.

FINEST NON-FREEZING.

Supplied in WINCHESTER QUARTS
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Low Quotations and Samples on
application.

DEPÔTS AT
SHAD THAMES, LONDON,
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MANUFACTORY: LOFODEN, NORWAY.



PASCALL'S GOLDEN MALTEX

PATENTED.

Contains 25 % of Allen & Hanburys' Extract of Malt.

A NOVEL CONFECTION.

Delicious Flavour. Brilliant & Attractive Appearance.

SELLS AT SIGHT.

Vide Dr. Tanner's Report, and The Chemist and Druggist, April 20th.

1/- Bottles, 9/- per dozen; 1-lb. Bottles, 18/- per dozen;
and in 2-lb. and 4-lb. Bottles, 1/4 per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER.

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

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HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St Peter's, Manchester,

And is sold in bottles, authenticated by a Government Stamp bearing their Name. Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d. or 2s. 9d.

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GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKLEY & SONS,

MANUFACTURERS OF

Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels,
Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish,
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OAKLEY'S WELLINGTON KNIFE POLISH

Prepared expressly for Oakley's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines.
Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

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For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKLEY'S "POLYBRILLIANT" (REGISTERED).

A Magic Pomade for Ocleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Paste.
Tins, 1d., 2d., 3d., and 6d. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

"EUREKA" CHEST PROTECTORS.

SEASON 1892-3.



Place your entire Season's Order with me.
BEST VALUE. BEST GOODS. MOST SALEABLE.

The "EUREKA" Medicated Pine Wool Felt. The Original Invention. Sixth Season.
Beware of Frauds and Imitations. The Genuine Label bears the Photograph of Inventor.

Sizes	0	1	2	3	4	5	6	
Single	6/-	7/6	9/6	12/6	15/6	18/6	21/6	POROUS
Double	13/-	15/6	20/-	25/-	30/-	36/-	42/-	AND WASHABLE.

Also SCARLET or WHITE, Best Quality, and NATURAL FUR-FELT ditto.

Sizes	0	1	2	3	4	5	6
Single	4/3	5/3	7/6	9/-
Double	10/6	12/-	16/-	21/-

Makers of every kind in various shapes—in CHAMOIS and FELT or FLANNEL.

Also Trusses, Elastic Hosiery, Abdominal Belts, Chest-expanding Braces, Galvano-Electric Belts and Corsets, Ear Caps for Children, Suspensory Bandages, Magnetic Appliances, &c.

I supply Handsome Statuettes under Glass Cases to those stocking my Goods and placing Season's Orders. Also Circulars, Self-measurement Forms, Electros, &c.

THE LARGEST COMBINED MAKERS IN THE WORLD.

VINCENT WOOD, 3 St. Andrew's Street, Holborn Circus (adjoining Church), LONDON, E.C.
ESTABLISHED 1840. Telegrams—"ACME LONDON."

BATTLEY & WATTS,

MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUGGISTS, CRIPPLEGATE, LONDON

EXTRACTS & LIQUID EXTRACTS A SPECIALITY.

LISTS SENT POST FREE ON RECEIPT OF BUSINESS CARD. PLEASE COMPARE PRICES.

ESTABLISHED 1830.

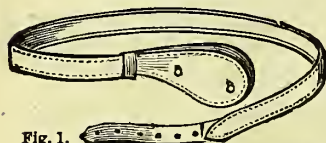


Fig. 1.

TRUSSES.

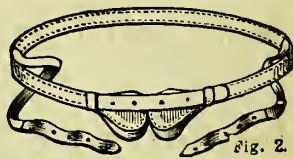


Fig. 2.

The Best and Cheapest Trusses of all kinds in the Wholesale and Export Market are manufactured by

LINDSEY & SONS.

ELASTIC STOCKINGS, SUSPENDERS, AND SURGICAL BANDAGES OF ALL KINDS.

WHOLESALE AND EXPORT. THE LARGEST SHIPPERS IN THE TRADE.

ILLUSTRATED PRICE LIST POST FREE TO ANY ADDRESS.

32 LUDGATE HILL, and 40 GRACECHURCH STREET, E.C.

"SPECIALITIES" OF WIDE REPUTATION

Suitably Packed for Home and Export, in various Languages, for all Markets.

<p>'COAGULINE' The Cement for all Broken Articles. LINSEED Chloro-Linseed and Throat Lozenges, Fajubes, &c. CUE CEMENT Cue Tips, Wafers, FIXERS, CHALKS, &c.</p>	<p>'LAVA' CEMENT. A fusible, impermeable Glass Valve Tubes, For Filling Bottles. ABSORBENT COTTON WOOL. FOR COUGHS AND COLDS.</p>	<p>COMPOUND ESSENCE OF LINSEED. OXYMEL SCILLA (exceptionally brilliant) Dec. Serrage Conoc. PHOSPHORACCHARITE. GLYCERINE. Linum Glycerinum. "BROWN WINDSOR" AND "ROSOTTO."</p>	<p>'SAPO-LINI' LINSEED SOAP. CHEMICAL Disinfectant CHESHIRE BIRDLIME. EMOLLIENT For Chapped Hands, &c. ELASTIC STOCKINGS, KNEE CAPS, SOCKS, ETC. GUN COVER and CARRIER. 'THERMONE' HEAT RADIATOR.</p>
---	---	---	---

Prices, Circulars with Name and Address, Specimens, Show Cards, Glass Tablets, &c., &c., on application.

KAY BROTHERS LIMITED, Laboratory and Works, ST. PETERSGATE MILLS, STOCKPORT, Founded A.D. 1786. Incorporated 1887.

FEEDING BOTTLES.

BENT NECK

"LA SPÉCIALITÉ" NEW SERIES.

FITTED WHITE RUBBERS

No. 85.—Green glass bottle, wood-top cork	21/-	} PER GROSS NET CASH. LONDON.
" 86.—White	...	...	...	...	...	...	...	...	23/-
" 87.—Green glass bottle, SCREW GLASS STOPPER	...	...	...	...	...	...	...	...	24/-
" 88.—White " SCREW GLASS STOPPER	...	...	...	...	...	...	...	...	26/-

FITTED BLACK RUBBERS

No. 89.—Green glass bottle, wood-top cork	23/-	} PER GROSS NET CASH. LONDON.
" 90.—White	...	...	...	...	...	...	...	...	25/-
" 91.—Green glass bottle, SCREW GLASS STOPPER	...	...	...	...	...	...	...	...	26/-
" 92.—White " SCREW GLASS STOPPER	...	...	...	...	...	...	...	...	28/-

CHEAP SERIES FEEDING BOTTLES.

STRAIGHT NECK

FITTED WHITE GLAZED CAPS.

WITH WHITE RUBBERS

No. 81.—Green Glass Bottles	20/-	} PER GROSS NET CASH. LONDON.
" 82.—White "	22/-	

WITH BLACK RUBBERS

No. 83.—Green Glass Bottles	22/-	} PER GROSS NET CASH. LONDON.
" 84.—White "	24/-	

IN QUANTITIES OF NOT LESS THAN ONE GROSS OF A KIND.

EACH BOTTLE IN PAPER BAG.

PLEASE QUOTE NUMBER IN ORDERING.

SEND FOR OUR NEW ILLUSTRATED PRICE LIST, JUST ISSUED.

Special attention is drawn to above Quotations for

SCREW STOPPER SERIES

Nos. 87, 88, 91, and 92.

We supply over 100 Various Kinds Attractive Feeding Bottles.

BREFFIT'S

OFFICES & SHOW ROOM—83 UPPER THAMES ST., LONDON.

EVERY CLASS AND DESCRIPTION

BOTTLES & GLASSWARE.

GLASS BOTTLES.

TO WHOLESALE AND EXPORT BUYERS.

DISPENSING BOTTLES of best quality, in White Flint or all the best and newest tints. **VIALS**.—White Flint or Coloured, in all shapes and sizes. **FEEDING BOTTLES**.—Plain mouths or Screw Stoppers, in White or Green Flint. **LIME CREAMS AND KALIS** of all sizes. **ESSENCE BOTTLES** of every description, Plain or Stoppered. **MALT EXTRACT BOTTLES**, in Actinic Green, Amber, Dark Blue, or White Flint.

TO FOREIGN AND COLONIAL BUYERS.

Having recently erected spacious Warehouses, we are enabled to give special attention to packing Goods for Export. Only experienced Packers employed.

E. A. HEARN & CO., WHOLESALE & EXPORT GLASS BOTTLE MANUFACTURERS, ECLIPSE GLASS WORKS, CHATSWORTH ROAD, CLAPTON, **LONDON, E.**

Registered Trade Mark.

BEST FLINT DISPENSING
BOTTLES, WHITE, BLUE, OR
GREEN TINT, AMBER
AND ALL OTHER
COLOURS.



Number 26866.

HAND MADE SHOP-ROUNDS.
OPAL, FLINT, AND
TURQUOISE BOXES.
SPECIAL ATTENTION GIVEN
TO PROPRIETARY
BOTTLES.

Owing to the steady and continuous increase in their business, and especially the enormous influx of trade they have experienced from Home and Colonial buyers during the last two or three years, the Proprietors of the above Brand of all shaped Dispensing and other Bottles have just completed an enlargement of their Works, which are now doubled in size, and capable of turning out very large quantities of Bottles at shortest notice.

The "W" Brand productions can be obtained only through Wholesale London Houses.

BOTTLES

Write for revised Price List of Dispensing Bottles, &c.

SAMPLES ON APPLICATION.

Special Quotations for Large Quantities.

E. YOULDON,
EAST LONDON GLASS BOTTLE WAREHOUSE,
36, 38, & 40 Great Garden Street.
WHITECHAPEL, LONDON, E.

R. H. BARRETT'S PATENT CAPPED BOTTLE.



THE ONLY REALLY PERFECT BOTTLE FOR VASELINE, POMADE, DRY POWDERS, ETC.

NOTICE REDUCTION IN PRICES.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 11/6; 1½ oz., 12/-; 2 oz., 12/6; 3 oz., 14/9; 4 oz., 16/9 per gross.

CHEMISTS' AND PERFUMERS' BOTTLES IN GREAT VARIETY, PLAIN OR STOPPERED.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

DISPENSING BOTTLES.

WEST LONDON DEPOT.

ESTABLISHED 1830.

Wholesale Merchants,

AND
CHEAPEST HOUSE IN LONDON.

JOHN P. BARRADELL & CO.

16 Paddington Green, LONDON, W.
PRICES ON APPLICATION.

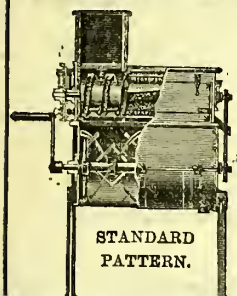
Use GARDNER'S Patent

'RAPID' SIFTERS & MIXERS

For Sifting and Blend-
ing every kind of Dry
Powders.

New Illustrated Catalogue on
application to

WM. GARDNER,
Engineer, &c., Gloucester.



STANDARD
PATTERN.

GLASS BOTTLES

GOOD AND CHEAP.

From Stock
in London or
direct from
the Works.

Before ordering of any other house, write for sample
of our

NEW SHAPE FLATS

WITH ROUNDED EDGES.

6 and 8 oz., 8/6 per gross.

3 " 4 " 7/6 "

PLAIN OR GRADUATED.

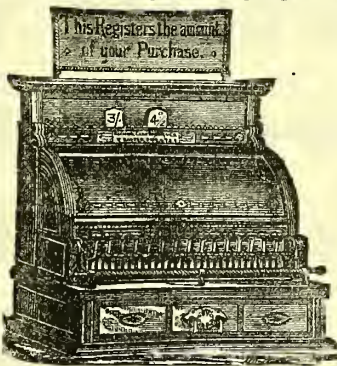
THE ORDINARY SHAPE THE SAME PRICE.

I. ISAACS & CO., Glass Bottle Manufacturers

25 Faneuil St., Tottenham Court Rd., LONDON, W.C.

Established 50 Years. Bankers—London and Westminster Bank.

A NATIONAL CASH REGISTER TILL



Is a Never-Tiring Sentinel, a
Silent Monitor, a Faithful
Guardian, a Devoted Friend,
a Hardworking Partner, a
Correct Cashier, and a Never-
Mistaken Bookkeeper.

It is Perfect in Make, Perfect
in Action, Perfect in Finish,
and Perfect in Results.

Please Call and Examine at
our London Offices and Show-
rooms,

356 STRAND, W.C.

Or send us a Post-Card, and
one of our Representatives
will call on you with a Sample
Register and explain our
System.

OVER 47,000 IN USE IN VARIOUS PARTS OF THE WORLD.

LEETE, EDWARDS & NORMAN, LTD.

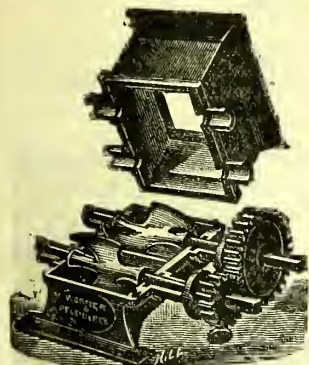
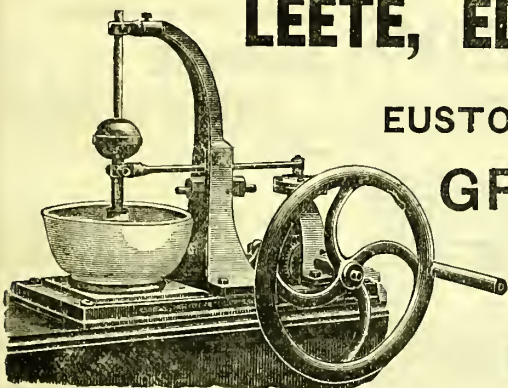
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EUSTON ROAD, LONDON, N.W.

GRINDING, LEVIGATING, AND MIXING MACHINES.

(GOODALL'S PATENT.)

PUMPS—For Semi-Fluids, Chemicals, &c.



Size 8, Type I, for 1-lb. Mass.

THE "UNIVERSAL"

KNEADING AND MIXING MACHINE

Pill Cutting, Pill Rounding, Pipers, and all other Machines for

PILL MASS MAKING,

Also for Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and
for general Mixing, Incorporating, Sifting, and Straining.

REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from $\frac{1}{4}$ lb. up to 1 ton at a time.

WERNER & PFLEIDERER, 117 QUEEN VICTORIA ST., E.C.

Contractors to the War Offices of all the Great Powers and other Governments.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

A. MILLAR & CO., DUBLIN; and 47 MARK LANE, LONDON, E.C.
Or of H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

GENUINE EAU DE COLOGNE.

JOHANN MARIA FARINA, Gegenüber dem Laurenz Platz,
Has the second largest sale amongst Chemists in the United Kingdom.

2 oz.
7/6

4 oz.
14/-

$\frac{1}{2}$ Pint Wicker.
21/-

Pint Wicker.
42/-

Quart Wicker.
84/- per doz.

Sole Agents—OSCAR MOENICH & CO., 8 Coleman Street, LONDON, E.C.

HIGH-CLASS WINES, PHARMACEUTICAL.

HIGH-CLASS S.V.R., B.P.

HIGH-CLASS S.V.R., PERFUMERY.

REASONABLE PRICES.

STEPHEN SMITH & CO., BOW, LONDON, E.

BEWARE OF COPYISTS.

Established 1840.

AWARDED OVER 40 PRIZE MEDALS.

THREE
GREAT

**Day & Sons,
Crewe.**

ANIMAL
MEDICINES

THE "PURIFIED" DRIFFIELD OILS,

Commonly called "Day's Oils,"
"Day's Black Oils."

For Wounds of all kinds in all animals.
For Saddle & Stake Wounds & Cracked Heels.
For Sore Teats and Swollen Udders in Cows.
For Anointing in bad Lambing and Calving.

Price 2s. 6d. and 6s. per Bottle.

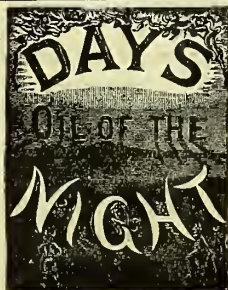


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THE RED DRINK OR COW DRENCH.

Cures Fever and Costiveness in Cattle.
Cleanses and Cools the Blood and System.
For Red Water, Indigestion, and Yellows.
Cures Bad Cleansing & prevents Milk Fever.
Price 12s. per dozen Packets.

The "EWE DRENCH" acts as
above for Sheep. 3s. 6d. per doz.



What's Good for Rheumatism?

DAY'S OIL OF THE NIGHT.

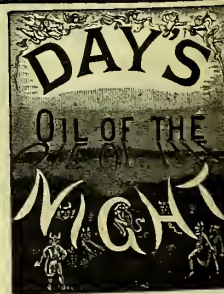
The People's Embrocation for Sprains, Muscular Weakness, Rheumatism, Lumbago, Cramp, Sore Throat from Cold, Sciatica, &c., and all Aches, Pains, and Soreness.

Send for "Day's Oil of the Night" terms, framed to prevent CUTTING.

CHEMISTS CAN HAVE A SINGLE BOTTLE DIRECT.

Price 1s. 1½d. and 2s. 9d. per Bottle.

DAY & SONS, CREWE, CHESHIRE.



S⁰/₅₆ V⁰/₆₀ R
19/4 19/10

PERFECTLY PURE.

FIT FOR ANY PURPOSE.

PURE ORANGE WINE.

NET CASH

WITH ORDER.



S⁰/₆₁ V⁰/₆₄ M

AT LOWEST PRICES.

Special Terms to Large Buyers.

PURE GINGER WINE.

FOREIGN WINE AND SPIRIT MERCHANTS.

SOLE PROPRIETORS OF THE FAMOUS "GLENALLAN" PURE MALT WHISKY.

Per doz. 42/- Per doz. THE CREAM OF SCOTCH BLENDS. Per doz. 42/- Per doz.

BOORD & SON,

DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS,
ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.

Quotations for S.V.R. Methylated Spirit and Finish on application.

FINEST ORANGE WINE FOR QUININE

JAMES BURROUGH, **S⁵⁶/_{O.P.} V⁶⁰/_{O.P.} R**

CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS

DAY, SON & HEWITT'S
NEVER FAILING HORSE, CATTLE & SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

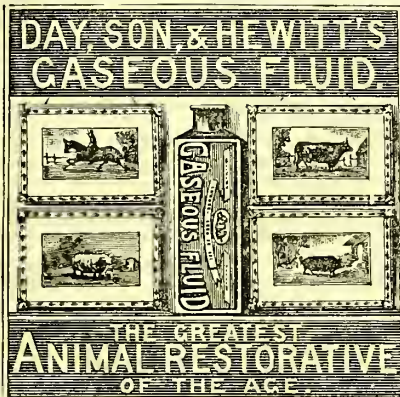
For Kicks, Cuts, Bruises, Sore Withers Swellings, Strains of Ligaments and Tendons, Saddle Galls, &c. It rapidly relieves Straining and Pain after Calving and Lamming, and is the remedy for Swollen Udders and Sore Teats.

Price 2s. 6d., 3s. 6d., and 7s.
per Bottle.

THE CASEODYNE,

Used as Laudanum for parturition in Mares, Cows, and Ewes, when there is great pain exhibited with feverish symptoms. Highly beneficial for Inflammatory Colic or Enteritis, and for severe forms of Diarrhoea.

Price 3s. 6d. per Large Bottle.



For Fret, Colic, or Gripes in Horses. Hoven or Blown Sheep, and General Debility in Stock; of exceptional value for Colds, Chills, Scour, Diarrhoea, and weakly Lambs and Calves.

Price 1s. 9d. per Bottle, 20s. per doz.

THE RED DRENCH.

For Colds, Indigestion, Costiveness, Yellows, Surfeits, Loss of Cud, Pleurisy, Hide-bound, Red Water, &c. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of Calving or Lamming.

Price: for Cows, 13s. per doz.; for Ewes, 3s. 6d. per doz.

THE BRONCHOLINE.

For Husk or Hoose in Heifers, Calves, Sheep, and Lambs, also Tape-worms in Tugs. No parasite can exist in the windpipe or air-passages after the blood has been impregnated with this worm-destroying medicine.

Price 2s. 6d. per Bottle.

THE ORIGINAL STOCK-BREEDER'S MEDICINE CHESTS,

For Horses, Cattle, and Sheep. Prices, £1 8s. 9d. and £2 16s. 6d.

THE ORIGINAL HORSE-KEEPER'S MEDICINE CHESTS,

For all ailments in Horses. Prices, £1 10s. and £2 17s. 6d.

ROYAL ANIMAL MEDICINE MANUFACTORY, 22 DORSET ST., LONDON, W.

Liberal Discount to Foreign Buyers.

Trade Terms and full particulars on application.

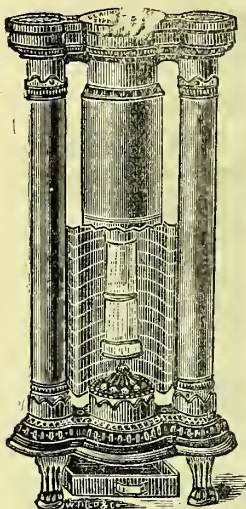
Attractive Show-cards and Handbills sent with each order.

TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF
"THE SYPHON" (REGISTERED TITLE) **HYGIENIC CONDENSING GAS HEATING-STOVES**
 (CLARK'S PATENT).

A Necessary for all Invalids. A Comfort to Everybody.

NO FLUE REQUIRED. FREE FROM SMELL OR SMOKE.



All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

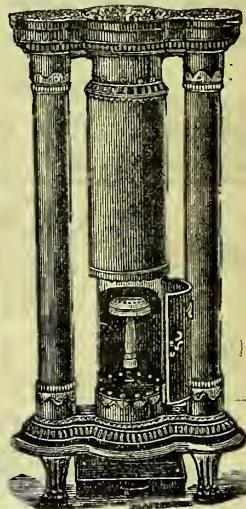
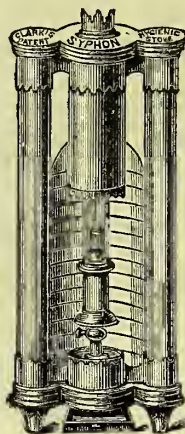
For use in Hospitals, Sick Chambers, Bedrooms,
Halls, Conservatories, Schools, Shops, &c.



They give a Pure, Equable, and Agreeable Heat, which can be graduated and sustained at the will of the user.

Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

For Terms, Particulars, and Prices, apply to



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Telegraphic Address—"SYPHON STOVES LONDON." Wholesale Agents—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.

AS A POLISH THE CLEANEST, BRIGHTEST, AND BEST.

PYN-KA

THE POLISHING TABLET (Unsurpassed). AWARDED GOLD MEDAL.

Cleans with a Brilliant Polish Brass, Copper, Silver, Gold, White and other Metal, Electroware, Glassware, and other domestic articles. For Restaurants, Hotels, Bars, and Biologists.

TESTIMONIAL FROM A LADY.—"Your 'PYN-KA' Sample is the best I have tried, and we shall use no other cleaning preparation in our house. It will, I am convinced, supersede all other Polishing Pastes."

For Wholesale Terms apply to the Sole Vendors—

THE PYN-KA SYNDICATE, LIMITED, 41 LORD ST., LIVERPOOL.

THE WANT OF THE DAY!

NO MORE SOFT LINEN WHEN STARCHED.

Used in the Royal Laundries.

Should be used In Every House.

The Greatest Boon ever offered to the Laundress for imparting an IVORY-FINISH to Starched Linen, Laces, &c. It does not stick to spider-web-like materials.



REGISTERED No. 40,376.

Once Tried, Always Wanted.

Makes Old Linen like New.

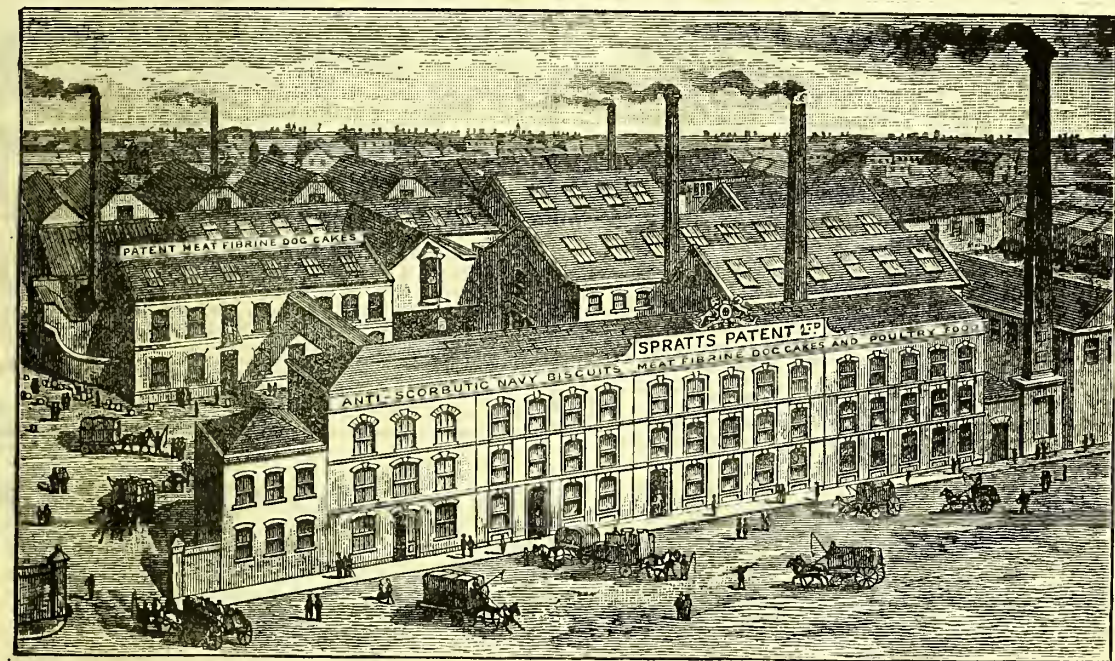
From the Chief Laundress to H.R.H. the Prince of Wales:—West Newton, near Lynn, Norfolk, Aug. 23, 1879. Sir,—Having tried your "STARCH GLOSS," I certainly think it a great improvement—far superior to any I have tried. Yours truly, E. ELDER.

To Mr. CRITCHLEY.

Sold by Chemists and Druggists, Grocers, Oilmen, &c., in Packets at 1d., 3d., 6d., and 1s. each.

PREPARED ONLY BY

T. CRITCHLEY, CHEMIST AND WHOLESALE DRUGGIST, BLACKBURN.
 LONDON DEPOT—2 BEECH STREET, E.C.



Henry Street, Bermondsey Street,
London, S. E.,

8 October, 1892.

Dear Sir,

The Pharmaceutical Profession so largely use the Wholesale Houses for their supplies of Proprietary and other articles that very probably you have not received our Revised Trade List, which we recently posted to all our direct customers.

If so write us at once, or apply to your Drug House. There are several matters in it particularly affecting Chemists.

One new article will especially commend itself to your notice. We allude to our

Pepsinated Puppy Meal,

Retail in 3d. Sample Tins; also in 1/-, 3/-, 6/- & 12/- Tins, for feeding during the critical weaning stage, and also for dogs of a larger growth, where illness arises from defective food assimilation.

Practical Doggie Booklets supplied for gratuitous distribution.

Faithfully yours,

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BALM OF BETHESDA
CURES
TENDER FEET,

Relieves Hot, Tender, Chafed, or Swollen Feet, softens Hard Blisters, renders the Feet pliant and elastic. Thousands of Testimonials.

Retails at 1/4 and 2/6 per bottle.
Wholesale Agents—Messrs. Butler & Crisp. Show-cards & literature supplied.

FRED^K FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES: Glycerine—Gum Arabic—Gum
Tragacanth—Pure Beeswax—Honey—Vanilloes.

MORISON'S PILLS,
POWDERS, AND OINTMENT.

WHOLESALE—

33 EUSTON ROAD, LONDON.**BURNS EMBROCATION**

The favourite rubbing for Athletes, Cyclists, and Sportsmen.

1/4, 2/6, and 4/6; 10/, 24/, and 40/- per dozen net.

Of all London Wholesale Houses, or direct from

H. BURN, 7 to 9 Gresham St., LONDON, E.C.

1 doz. 1/4 sent carriage paid in United Kingdom for P.O. 10/.

A NOVEL IDEA. VERY PROFITABLE.**TOM BROOKS'S "SANOSCENT"**

Is a Solid Perfumed Disinfecting Tablet, retaining its virtue for years.
Exhales sweet, balmy odour. Eradicates Fleas and Moths. Each in a Japanese Basket. Retails 2d., or 4 baskets in outer for 6d. Trade 12s. gross, 1 gross Carriage paid. Sample 2 doz., Post Free, 2/-.

TOM BROOKS, CHEMIST, HORNSEY, LONDON, N.**INDIARUBBER STAMPS**

For all purposes and in all styles.

Self-Inking Stamps, as Illustration, from 2/ each.
Chemists' Prescription and Dating Stamp
of all kinds. Brass Seals for Wax, Stenells,
Dies, &c. Price and Pattern Sheets post free.

J. BERKLEY, 8 LIVERY ST., BIRMINGHAM.**BUSH'S LIQUID BEEF**
(REGISTERED).

Please note Signature across
Registered Label—

Of all Wholesale Houses, or direct from Sole English Depôt,

A. P. BUSH & CO., 1 Gresham Buildings, LONDON, E.C.

Showcards, &c., on application.

PRECIPITATED CHALK, WHITEST AND PUREST.

CHEAPEST SELLERS IN THE MARKET.

ALSO CHEMICALS, DRUGS, AND OILS

APPLY TO

AUG. LEVERMORE & CO., 8 LIME STREET, LONDON, E.C.**FINEST CRUSHED LINSEED.**

£15 per ton, 17s. per cwt., 9s. per 56 lbs., in bags;
27s. for 36 2-lb. Tins; carriage paid within 200 miles

WALTER GRAHAM & CO.

PURVEYORS TO HER MAJESTY.

HEADLEY OIL MILLS, GREENWICH.**THE "MORSTADT" Cachets**

Are the most digestible, flexible, and elegant Cachets in the market, and are fast replacing all competitors. The Cachets are made to hold from 3 to 184 grains Quinine or Salicylic Acid.

"MORSTADT" CACHET CLOSING APPARATUS, to easily, cleanly and speedily close 12 Cachets at one operation, from 12s. to 30s.
SMALL APPARATUS, to fill and close 1 Cachet at a time, 2s. 6d. each.

THOMAS CHRISTY & CO., 25 Lime St., London, E.C.**"SILVERY WHITE GUTTA PERCHA ENAMEL" TOOTH STOPPING**

P. A. STEVENS, Surgeon-Dentist,
72 MANSFIELD ROAD, N.W.,
SOLE PROPRIETOR AND MANUFACTURER

Registered—No. 3746.
Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name. A sample box of 3d. sticks sent post free for 12 stamps. Price list and sample free.

Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing by the Sole Manufacturers:—
Fletcher, Fletcher & Stevenson,
21 Mincing Lane
London, E.C.

PUREST CHLOROFORM

Guaranteed free from all injurious impurities. The Purest in the World.

SEND FOR ANALYSIS AND TESTIMONIALS.

SALAMON & CO., LD., CHEMICAL MANUFACTURERS
RAINHAM, ESSEX.

FIRST EXTRACT LEMON OIL

Absolutely pure. Nothing finer imported.

5/6 per lb. c.i.f. Hull, London, or Liverpool, delivered as required to June, 1893.

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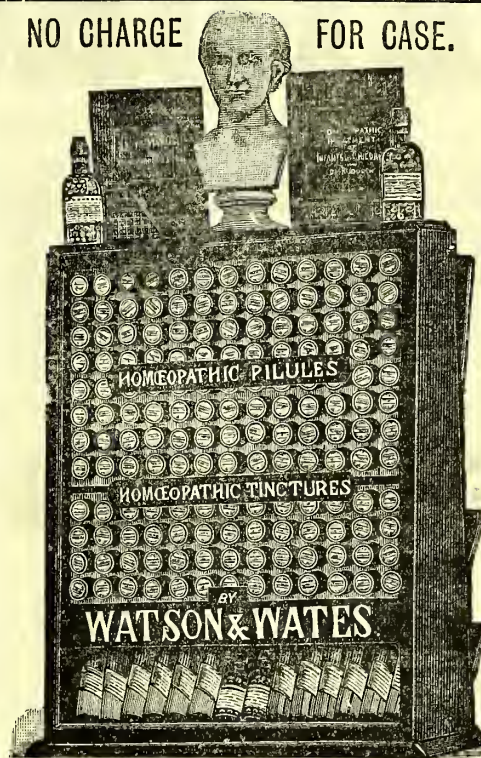
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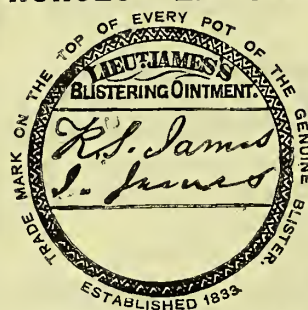
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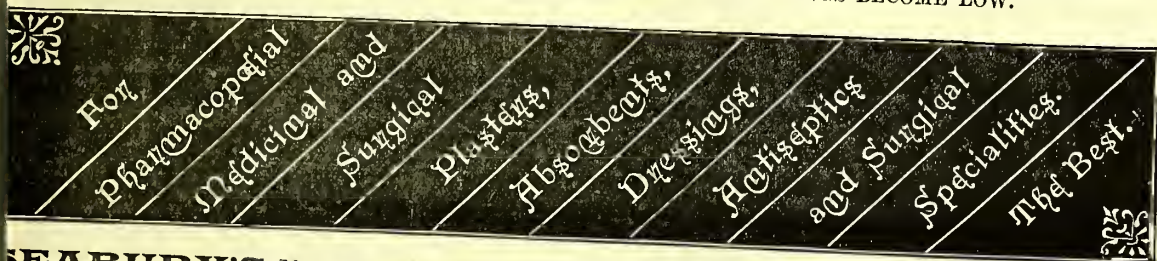
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